Calcutta Sanskrit College Research Series No. LXVI

A HISTORICAL PHONOLOGY OF OṚIYĀ

By

PARESH CHANDRA MAJUMDAR, M. A.,
LECTURER IN LINGUISTICS,
SANSKRIT COLLEGE, CALCUTTA.



SANSKRIT COLLEGE
CALCUTTA
1970

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TO

MY PARENTS

WITH

GRATITUDE, LOVE AND DEVOTION.

FOREWORD

It gives me great pleasure to write this foreword to the volume entitled "*A Historical Phonology of Oṛiyā*" by Sri Paresh Chandra Majumdar, M. A., Lecturer in Linguistics of our College. Sri Majumdar has indeed, performed a commendable job by devoting himself whole-heartedly to a detailed scientific description of Oṛiyā Language. As he has himself noted—"This is a first comprehensive attempt of its kind to treat Oriya." This comparative treatment of an important modern Indo-Aryan Language has been carried on from an altogether new perspective—viz., "in perspective of geo-historical basis" as Sri Majumdar claims in his preface.

Sri Majumdar has had the rare good fortune to be the disciple, in Linguistics, of the two foremost teachers of the subject in India—Dr. Suniti Kumar Chatterji, National Professor in Humanities, and Dr. Sukumar Sen, Retired Khaira Professor of Linguistics and Comparative Philology of Calcutta University, and it is due to their constant guidance and affectionate encouragement that it has been possible for him to bring his present investigation to a successful conclusion.

Indian Linguisticians have proved their worth as original investigators mainly in the field of modern Indian languages. Long ago, Dr. Suniti Kumar Chatterji very cogently observed in the course of a brief survey of *Linguistics in India.* :

> "Want of tradition and equipment is thus delaying contribution of worth to the Linguistics of the earlier phase of Indo-Aryan, going back to the Indo-European and pre-Indo-European, and naturally Indian scholarship found its proper field in the modern Indian Languages. Here we have certain advantages which belong only to those who are the manner born."

And Dr. Chatterji himself has been one of the illustrious pioneers in this field among Indians, though the contributions of European scholars like Beames, Grierson, Caldwell, Jules Bloch and Turner must always be recalled with gratitude and reverence. Indian scholars have very fruitfully applied the principles and techniques, evolved by western savants in the course of the comparative study of Indo-European languages, in their investigation of modern Indian languages as well, so that we are now in a position to have a fairly accurate and detailed account of most of the major modern Indian languages, though much still remains to be

achieved. The quest in this particular field of linguistic inquiry, as in the case of every other scientific investigation, is destined to be an unending one.

We are particularly thankful to Śri Majumdar that, instead of collecting second-hand materials, he undertook the arduous task of learning Oṛiyā in the true spirit of a genuine research-worker in order to have direct access to his sources. It is hoped that the importance of his contribution in the field of Indian Linguistics would be duly recognised by scholars interested in the subject and that young research-workers in Bengal would be inspired by the example of Sri Majumdar and master other modern Indo-Aryan languages so that they might be able to make original contributions and thus further the cause of the Science of Linguistics.

Dated, the 24th December,
1970.

Bishnupada Bhattacharya,
Principal
Sanskrit College, Calcutta.

PREFACE

It gives me great pleasure to present to the scholars and students of Linguistics the result of research in the field of the Oṛiyā language. I began to learn Oṛiyā when I was a student of Calcutta University in the Department of Bengali. My main interest then was to evaluate the literary exposition of medieval Vaishnavism in post-Caitanya era of Bengal and Orissa. But when I obtained my M. A. degree in Bengali (1957), I had an i'ea to be a regular student of Comparative Philology. For, a keen interest in this subject grew up in my mind when I had the good fortune of listening to the regular lectures on Bengali Philology delivered by Dr. Sukumar Sen in the postgraduate classes. Inspired constantly with his judicious assessment and over-all thoroughness in the field of Sanskrit, Prakrit and Bengali languages and literatures during the years, 1954-1960, I was initiated into his way of analytical thinking and scientific precision. After taking my M. A. degree in Comparative Philology (1960), I gave up my former desire and devoted myself completely to the study of the Oṛiyā language proper as this field has been remaining for long untrodden. I was thereby elevated to undertake this present work immediately after I left the University and took this subject as the matter of my future doctoral thesis under the guidance of Dr. Sen. I felt myself gratified when he gave his consent regarding the matter and made all necessary arrangements.

For about three years I was busy in taking notes in a systematic manner. But I had hardly finished the first draft of this work when Dr. Sen was unfortunately retired. Any way, in the face of a heap of troubles on part of me, I had to continue my research-works independently after I joined as a Lecturer in Govt. Sanskrit College, Calcutta. In the mean time, I had an opportunity of being in contact with Dr. Suniti Kumar Chatterji, National Professor of Humanities, as I had the proud privilege of listening to the Seminar lectures delivered by him on Gothic Philology for several months in the Department of Comparative Philology, Calcutta University. From that time onwards, I tried to keep contact with him and to revise my drafts according to his valuable suggestions, questions, comments and criticisms.

In the mean time, our Ex-Principal, Dr. Gaurinath Sastri, an ardent lover of Linguistics and also a pioneer in introducing Linguistics in this college, expressed his sympathetic desire to publish this present work and invited the comments on the same of Dr. S. K. Chatterji who at once encouraged him in an official letter after reading few of my published

papers on Oṛiyā. Subsequently, this work was destined to be published in parts since 1964 in "Our Heritage", the Bulletin of the Department of Postgraduate Training and Research, Sanskrit College, Calcutta.

No doubt, a lot of time has elapsed since the completion of the manuscripts causing thereby unavoidable lapses due to long-drawn intervals, but it was a great boon to me, as I had the opportunity to check and elaborate my findings from time to time.

So far as the topic of this work is concerned, I humbly submit with all awareness of my limitations in handling a language not my own, that this is a first comprehensive attempt of its kind to treat Oṛiyā, the glorious language of the past and present in its historical perspective. This is not a complete achievement in its entirety as to deal with all the branches of Oṛiyā which is a tremendous task on part of me ; it is rather a part of my scheme as it deals only with phonology treated diachronically covering the different stages of Oṛiyā language and literature and hence the term "Historical Phonology." Nevertheless, it is a compaiative treatment of the eastern Aryan languages (old and new) in perspective of geo-historical basis—neither too generalized in its scope like previous works of Beames and others, nor too synchronic like those of the modern Descriptivists. I would rather say, it is an attempt to treat Oṛiyā (old and new) in the light of the so-called Māgadhan inheritances. I do not know how far this methodology, also illustrated in the Introductory Chapter, would be accepted by the present scholars, but I am inclined to this line of approach when I feel that the noble and monumental achievement of Dr. Turner in compiling a comparative Dictionary of the Indo-Aryan languages, is likely to be supplemented with such kind of historical treatment of the regional languages deserving comparison.

I would have been happy if I could include Magahī cognates of Oṛiyā and deduce the general principles relating to Magahī phonology, but this was not possible as the materials were not available at the time of writing ; and moreover, such a separate attempt for collecting fresh materials seems to be not only digressing so far as Oṛiyā is concerned but also a subject-matter of a new field of research. Anyway I have tried to include some of the comparative principles of Magahī phonology in the Introduction which happened to be published as the final part of print. It would have been wise also to present an index of all Oṛiyā words used in this book but I have dispensed with the idea as it would take additional time and space.

My thanks are due specially to Dr. Suniti Kumar Chatterji who is a savant of international repute but has always been polite and attentive even to a humble seeker like me and it is in real sense that

without his recognition this work did not happen to see the light of the day. I also owe my sincerest gratitude to our Ex-principal Dr. Gaurinath Sastri who obliged me not only by giving permission to publish this humble work at that time but also encouraged me from the very beginning in ardent enthusiasm. My indebtedness to both of them is beyond measure.

I am also indebted to my revered teacher Dr. Sukumar Sen, one of the outstanding linguists of our time. I really feel proud when I think I had had a rare opportunity of being his student for more than six years during my Post-graduate classes.

I also take this opportunity of expressing my deep sense of gratitude to our present Principal, Sri Bishnupada Bhattacharya who has been kind enough to write a Foreward to this book.

I must acknowledge my debt of gratitude to my other teachers Dr. D. N. Basu and Dr. C. Datta of Calcutta University. In a very real sense this volume is inspired by the encouragements of Professor P. Sinha Roy in the Department of Comparative Philology, Calcutta University. My thanks are also due to many who have aided me in preparing this volume: to Dr. S. S. Misra, Dr. S. Chatterji, Dr. S. N. Ghosal and Dr. D. Srivastava of Calcutta University. I should like also to express my grateful thanks to my colleagues in this college —to Dr. M. Jha, Professor and Head of the Department of Linguistics, to Dr. B. P. Mallik and Dr. S. P. Pandey; and to my other colleagues, friends and well-wishers from whom I received help and encouragement towards completion and publication of this book. I am also indebted to Dr. K. B. Tripathi, author of "The Evolution of Oṛiyā Language and Script" for the inscriptional materials, especially the chart of the Oṛiyā vowels which were of immense value to me.

I also sincerely express my gratitude to my uninitiated teachers of Oṛiyā in Orissa and Calcutta who are the speakers of the different dialects of Orissa. From their contributions and association I derived benefit of no mean value in preparation of the present work. I am also grateful to Sri Achyut Kumar Ghosh, a resident of Cuttack for his helping attitude and co-operation.

To the Editor, Pandit Nani Gopal Tarkatirtha, I owe a gratitude transcending words. I am grateful for his courtesy, skill and patience in a task which must at times have been sorely vexing. My sincerest thanks are also to the Printers. To my wife, Sm. Shanti Majumdar, B. A, I also owe much for her constant inspiration and assistance in preparing the book that her skill and training could afford.

Sanskrit College, Calcutta.
October, 1970

Paresh Chandra Majumdar

CONTENTS

A. SIGNS

>	means *gives, leads to, is changed to,* etc.
<	means *comes from, is derived from,* etc.
* °	before a word or affix indicates a hypothetical form not preserved in literature but reconstructed.
?	before a word or form indicates doubt as to the form proposed or to the form being the source of the word or connected with the word under discussion.
√	means *root.*
+	joins up the component parts which are the basis of a Modern Indo-Aryan or other word. It also means *with the addition of, extended by.*
-	the hyphen : used to analyse words into their roots and affixes. When a word is given with a hyphen at the end, it indicates merely the base form to which the other additions or suffixes or inflexions were made. Prefixes have a hyphen after them, and suffixes and inflexions before them. A letter between hyphens means a *sound.*
/	When it stands between two vowels as in *o/i,* it means : when *-o-* in one syllable is followed by *-i-* in a succeeding syllable. It also means *beside, parallel with, alternating with,* etc.
⌣, ~	Signs of nasalization.
ʹ	on the top of a vowel (in chapter XIV) means *accent mark.*
=	indicates a cognate form, or a source type.

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A. SIGNS

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= indicates a cognate form, or a source type.

B. TRANSLITERATION

Indo-European :

m̥, n̥ The sonant nasals
ə The 'neutral' vowel or *schwa*

Indo-Iranian :

z the voiced from of s, ś

Old Indo-Aryan :

Vowels : a, ā, i, ī, u, ū, ṛ, (ḷ), e (or ē, e:), ai, o (or ō, o:), au.
Consonants : k, kh, g, gh, ṅ ; c, ch, j, jh, ñ ; ṭ, ṭh, ḍ, ḍh, ṇ ; t, th, d, dh, n ;
p, ph, b, bh, m ;
y, r, l, v, ś, ṣ, s, h, ḥ, ḷ, ḷh (vedic), ṃ (or ṁ).

New Indo-Aryan :

Nasalized vowels : ã, ã: (or ā̃), ĩ, ĩ: (or ī̃, ī̃), ũ, ũ: (or ū̃, ū̃) ẽ, õ (or ẽ, õ),

˜, ~ mean pure nasalization
W stands for w-glide.
Y stands for y-glide.
W ~ } nasalized glides in proto-NIA stage. The sign of nasalization
Y ~ } has been placed at the side instead of at the top to accomodate the Press.
· after a symbol denotes length of the sound indicated by it whether a vowel or consonant.
ṛ, ṛh stand for Oṛiyā and other NIA intervocal and final ḍ, ḍh.
ḷ Oṛiyā retroflex flapped consonant.
' stands for elision after *Sandhi* (as in Oṛiyā *cāri+aṇā*> *cār'aṇā*), or contraction of vowels (as in Oṛiyā *nāā/nā'*).
a' stands for Bengali -a- [ɔ] pronounced as [o] ; Oṛiyā contracted -aa-[ɔɔ/ɔ:] ; Assamese [ɔ] as in English *coat, law* etc. It also shows the elision of a following mutating vowel -i- in Assamese e. g. *ca't* [sɔt].
ă, ă stand for Maithilī central vowel [ɒ].
à Bengali lax [ɔ] or [o] as in Bengali bhālà=bhālo.
ɐ stands for [ɒ] ; In Assamese it is a kind of [ɔ] without lip-rounding, equivalent to British English -o- in *hot*. It is also a resultant sound due to the contraction of awa, ava, aha etc.
ϵ, ɛ stand for Cardinal vowel no. 3 [ϵ] i. e, low-mid front vowel as in dialectal East Bengali, dialectal Oṛiyā and also Assamese.
aɛ, æ aϵ stand for Maithilī, Bengali [æ].
ə 'neutral' vowel i. e. the weak and unstressed vowel in NIA.

ai, *au* specially indicate the diphthongal nature of -ai- and -au-.

aï, aü } Dissyllabic vowel groups. In Prākrit, the dissyllabic aï, aü are often represented as -ai, au- ; In case of Oṛiyā *tadbahva* words, the diphthongs *ai*, *au* are represented in traditional orthography as aï, aü, but here they are always shown as ai and au, if not otherwise indicated.

C. ABBREVIATIONS

1. Oṛiyā Literature

AKG	Amarakoṣa-Gītā of Baḷarāma Dāsa
BA	Baṭa-Avakāśa of Baḷarāma Dāsa ed. A. B. Mahanty
BB	Vaidehīśa Viḷāsa of Upendra Bhañja
BC	Vidagdha Cintāmaṇi (part i) of Abhimanyu Sāmanta Siṁhāra, ed. A. B. Mahanty, 1928, Utkal Sāhitya Press, Cuttack
BG	Virāṭa Gītā of Baḷarāma Dāsa, published by A. Sirkar, 1916
BGi	Śrīmad-Bhāgavada-Gītā of Baḷarāma Dāsa, published by Oṛiyā Research Dept., Viśva Bhārati
BGP	Viṣṇu-Garbha Purāṇa of Caitanya Dāsa, ed. Dāśarathi Dāsa, 2nd imprint
Bh	Bhajana-Mālā (in 3 parts) of Bhīma Bhoi ed. Prācī Samiti (part ii 3rd edition)
BhJ	Bhāgavata of Jagannātha Dāsa (Canto 10-11 quoted in Prācīna Gadya-Padyādarśa ed. A. B. Mahanty)
BNG	Brahma-Nirūpaṇa-Gītā of Bhīma Bhoi, 2nd edition
BP	Śrīmad-Bhāgavata-Purāṇa (Vol. i) of Jagannātha Dāsa ed. Mohana Caraṇa Dāsa, 1955
BrN	Śrī Bṛhannāradīya Purāṇa of Cintāmaṇi Tripāṭhī, ed. A. B. Mahanty, 1927
BSAS	Brahma Śāṅkoḷi O Aṇākāra-Saṁhitā of Acyutānanda Dāsa ed. A. B. Mahanty, Prācī Samiti
ChG	Chatiśa-Gupta-Gītā of Baḷarāma Dāsa, published by Dāśarathi Pustakālaya.
CM	Cautiśā-Madhu-Cakra (in 5 Vols.) edited and published by B. Paṭṭanāyaka, Prācī Samiti, 1931, 1933
DR	Dāṇḍī Rāmāyaṇa of Baḷarāma Dāsa, edited and published by Govinda Ratha, Cuttack, 1912
EOLS	The Evolution of Oriya Language and Script by K. B. Tripāṭhī, Cuttack, 1962 (*see* under Oṛiyā Inscriptions)
GBG	Guru-Bhakti Gītā (vol. i) of Acyutānanda Dāsa, ed. and pub. Prācī Samiti
GBh	Gopī Bhāṣā of Danāi Dāsa ed. and pub. Prācī Samiti
Insc(r)	Inscriptions (*See* under Oṛiyā Inscriptions)
JBh	Jayakṛṣṇa-Bhajana of Jayakṛṣṇa Pradhāna ed. and pub. Prācī Samiti
JC	Jagamohana Chānda of Dīna Kṛṣṇa Dāsa ed. and pub. Prācī Samiti

Kaḷasā — Kaḷasā Cautiśā of Bacchā Dāsa quoted in Prācīna Gadya-Padyādarśa ed. A. B. Mahanty

KBS — Koṭi-Brahmāṇḍa-Sundarī by Upendra Bhañja

KhB — Khāṛaṅgā Bhāgavata of Dīnabandhu Dāsa ed. and pub. Prācī Samiti, 1st imprint

K(es).K(o) — Keśava Koili and Koili Māḷikā published by Mā Kanaka Durgā

L — Lāvaṇyavatī of Upendra Bhañja (part i) ed. A. B. Mahanty pub. Utkal University, 1952

MBh — Mahābhārata of Śāralādāsa, published by Rādhā-Ramaṇa Pustakālaya, Cuttack. Abbreviations of different *Parvas* referred to in the present work :—

Ai	Aiṣika vā Kāīśikā Parva
As	Aśvamedha and Āśramika Parva
B	Bhīṣma Parva
D, Dr	Droṇa Parva
G	Gadā Parva
K	Karṇa Parva
M	Mūṣaḷī Parva
Md	Madhya Parva
N	Nārī o Śānti Parva
Sl	Śalya Parva
Sv	Svargārohaṇa Parva
U	Udyoga Parva

MM — Mathurā-Maṅgaḷa of Bhakta Caraṇa Dāsa ed. Prācī Samiti, 1951, pub. Utkal University

MP — Mādaḷā Pāñjī ed. A. B. Mahanty, Cuttack, 1940

NC — Naḷa Carita of Madhusūdana Dāsa, ed. A. B. Mahanty, Prācī Samiti

PBG — Prema-Bhakti-Brahma Gītā of Yaśovanta Dāsa, ed. and pub. Prācī Samiti

PC — Purṇatama Candrodaya of Vṛndāvatī Dāsī ed. K. C. Mahāpātra pub. Prācī Samiti

PG — Parace Gītā of Dwārakā Dāsa ed. A. B. Mahanty, Prācī Samiti, 1929

PGP — Prācīna Gadya-Padyādarśa, compiled and ed. A. B. Mahanty

PP — Prema-Pañcāmṛta of Bhūpati Paṇḍita ed. Lakṣmīkānta Caudhurī published by Utkal University, 1st edition

PSN — Prema-Sudhā-Nidhi of Upendra Bhañja

Rasakulyā — Raskulyā Cautiśā of Dāmodara Dāsa quoted in Prācīna Gadya-Padyādarśa

RB — Rāma-Bibhā of Arjuna Dāsa ed. and pub. Prācī Samiti, 1953

C

RBh	Rukmiṇī Bibhā of Kārtika Dāsa, ed. A. B. Mahanty, Prācī Samiti
RBR	Rasa-Vāridhi of Vṛndāvana Dāsa ed. A. B. Mahanty, Prācī Samiti
RH	Rasika-Hārāvalī of Upendra Bhañja
RK	Rasa Kallola of Dīna Kṛṣṇa Dāsa ed. A. B. Mahanty, Mukuṛa Press, Cuttack, 1927
RM	Rahasya Mañjarī of Deva Durlabha Dāsa ed. and pub. Prācī Samiti, 1928
RP	Rasa-Pañcaka of Upendra Bhañja
SC	Stuti-Cintāmaṇi (vol. i) of Bhīma Bhoi, ed. A. B. Mahanty, 1928 3rd imprint
SNG	Śruti-Niṣedha-Gītā of Bhīma Bhoi, Prācī Samiti
SS	Śiva-Svarodaya of Yośovanta Dāsa, Prācī Samiti
SSN	Śaśī-Seṇā of Pratāpa Rāya, ed. A. B. Mahanty, Prācī Samiti
TAOPP	Types of Ancient Oriya Prose and Poetry, ed. A. B. Mahanty, Cuttack, 1932
TB	Tuḷā Bhiṇā of Jagannātha Dāsa, Utkal Press, Cuttack
TBh	Ṭīkā Bhāgavata of Jagannātha Dāsa (in Bengali Script), Kāthi Nīhār Press, Bengali year 1326
TSOL	Typical Selections from Oriya Literature (in 3 Vols.), compiled and edited by B. C. Mazumdar, Calcutta University,1921
UBh	Ūṣābhiḷāṣa of Śiśu Śaṅkara Dāsa, ed. Prācī Samiti

2. Reference Books and Journals

Alt G	Altindische Grammatik : J. Wackernagel, Goettingen, 1896—
AO	Antiquities of Orissa : R. L. Mitra, Calcutta, 1880
Bh I	Bhāṣār Itivṛtta (in Bengali) : Sukumar Sen, 4th edition, 1950
CDIA	A Comparative Dictionary of the Indo-Aryan Languages : R. L. Turner, London, 1966
CGD	A Comparative Grammar of the Dravidian Languages : Caldwell, 4th edition, reprint
CGP	Caryā-Gīti-Padāvalī (in Bengali) : ed. S. Sen, Burdwan, 1956
CP	Caryāpada (in Bengali) : ed. M. M. Basu, Calcutta
Deś	Deśīnāmamālā
dhātp	Dhātupāṭha
E Aw	Evolution of Awadhī : B. Saksena, Allahabad, 1937
EOLS	The Evolution of Oriya Language and Script : K. B. Tripathi, Cuttack, 1962
FA	Assamese, its Formation and Development : K. Kākati, Revised edition, 1962

FK	The Formation of Koṅkaṇī : S. M. Katre, Bombay, 1942
FM	The Formation of Maithilī Language : S. Jha, 1958
GK	Grammatik der Prakrit Sprachen : Pischel, English Translation by S. Jha
Guj Phon	Gujrātī Phonology : Turner, published in JRAS, July, 1921
HBL	History of Bengali Language : B. C. Mazumdar, Calcutta, 1927
HGA	Historical Grammar of Apabhraṃśa : G.V. Tagare, Poona, 1948
HGIP	Historical Grammar of Inscriptional Prakrits, M.A. Mehendale, Poona 1948
HL	Historical Linguistics and Indo-Aryan Languages, A. M. Ghatage, 1962
IA	*Indian Antiquary, Bombay*
IL	*Indian Linguistics,* Bulletin of the Linguistic Society of India, Poona
IVC	Index Verborum of Caryā Songs : S. Sen in IL vol. IX
JAS, JASB	*Journal of the Asiatic Society of Bengal,* Calcutta
JBORS	*Journal of the Bihar & Orissa Research Society, Patna*
JRAS	*Journal af the Royal Asiatic Society,* London
Jn	Linguistic Peculiarities of Jñāneśwarī, M. J. Panse, Poona, 1953
KhD	The Language of the Kharoṣṭhi Documents from Chinese Turkestan : T. Burrow, Cambridge, 1937
LM	La Formation de la Langue Marathe Paris, 1920 : J. Bloch ; Marāṭhī Translation : V. G. Paranjape, 1941, Poona
LSI	Linguistic Survey of India : ed. Grierson Calcutta 1903-27
MG	Maithilī Grammar ; Grierson : An Introduction to the Maithilī Dialect of the Bihārī Language, Calcutta, 1909
MVK	Magahī-Vyākaraṇ Koś : S. Aryani, 1965
ND	Nepālī Dictionary ; Turner : A Comparative and Etymological Dictionary of the Nepali Language, London, 1931
OBI / Or Bh I	Oṛiā Bhāṣāra Itihāsa (in Oṛiyā) : Vināyaka Miśra, Cuttack, 1927
OBLT	Old Bengali Language and Texts : T. P. Mukhopādhyāy
ODBH	Origin and Development of Bhojpurī : U. N. Tewari, Calcutta, 1960.
ODBL	Origin and Development of the Bengali Language : S. K. Chatterji, Calcutta, 1926
OHRJ	*The Orissa Historical Research Journal,* Bhuvaneswar.
OMR	An Old Marāṭhī Reader : S. G. Tulpule, Poona, 1960
OWR	Some Notes on the Grammar of Old Western Rājasthānī : L.P, Tessitori, IA Vol. XLIII, 1914
Phon of P	A Phonology of Pañjābī and a Ludhiani Phonetic Reader, : B. D. Jain, Lahore, 1934

R, Rāg	Rāgataraṅgiṇī of Locana
SII	*South Indian Inscriptions* (texts), Vols. IV to X.
SKK	Śrī-Kṛṣṇa-Kīrtan : Baṛu Caṇḍidās (14th c.) [in Bengali] ed. Basantaranjan Roy, Vaṅgīya Sāhitya Pariṣat, Bengali year 1356
TS	Ṭīkā-sarvasva, a Commentary on Amarakośa : Sarvānanda (Sarv., SN) [12th c A D] cf *Indian Linguistics* Vol. VIII (4) pp. 185-200 ; New Indo-Aryan Vocables in Sarvānanda's Ṭīkāsar-vasva : Sen
UVP	Ukti-Vyakti-Prakaraṇa of Dāmodara (12th c A.D.) ed. Jina Vijaya Muni, introduction by Dr. S. K. Chatterji
VN	Vidyāpati Padāvali : Vidyāpati Ṭhākur (15th c A.D.) Nepal manuscripts
VR	Varṇa-Ratnākara of Jyotirīśvara Ṭhākur (14th c A.D.)
VRC	Varṇa-Ratnākara of Jyotirīśvara Ṭhākur (14th c) published by the Royal Asiatic Society of Bengal, (introduction by Dr. S. K. Chatterji), 1940
ZDMG	*Zeitschrift der Deutschen Morgenlandischen Gesellschaft*

3. Languages and Dialects

Amg	Ardha-Māgadhī
Ap	Apabhraṃśa
Ar	Arabic
Aś	Asokan i. e. the language of the inscriptions of Aśoka. Also śh = Śhāhwāzgaṛhī ; Kā = Kālsī
Ass	Assamese
Aw	Awadhī
B, Beng	Bengali
Bh, Bhoj	Bhojpurī
Bi, Bih	Bihārī
Braj	Brajabhākhā (dialect of Western Hindī)
Budd Skt	Buddhist Sanskrit (Hybrid)
Cl. Skt	Classical Sanskrit
D	Dardic Speeches
eMB	early Middle Bengali
Eng	English
G, Guj	Gujrātī
Gk	Greek
H	Hindī
IA	Indo-Aryan
IE	Indo-European
I. Ir	Indo-Iranian

Ir	Iranian
K, Kāś	Kāsmīrī
Kā	Kālsī insc. of Aś.
L, Lah	Lahndā or Western Pañjābī
M, Mar	Marāṭhī
Mag	Magahī
Mai	Maithilī
MB	Middle Bengali
Mg	Māgadhī Prākrit
MIA	Middle Indo-Aryan
N, Nep	Nepālī
NB	New Bengali
NIA	New Indo-Aryan
OB	Old Bengali
OIA	Old Indo-Aryan
Or	Oṛiyā
P, Panj	Pañjābī
Pā	Pāli
Pers	Persian
Pk, Pkt	Prākrit
RV	Ṛg Veda
S	Sindhī
Śh	Śāhwāzgaṛhī insc. of Aś.
Singh, Sgh	Singhalese
Skt	Sanskrit
Ved	Vedic

4. Grammatical

abl	ablative
absol	absolutive
acc	accusative
adj	adjective
caus	causative
compd	compound
dat	dative
denom	denominative
der	derivative
dial	dialectal
du	dual
f	feminine

fut	future
gen	genitive
Gr	grammar
imp	imperative
inst	instrumental
loc	locative
lw	loan word
m	masculine
nasal, nasl	nasalization
Nom	nominative
p	person
part	participle
pass	passive
pl	plural
pr	present
pt	past
sg	singular
sts	semi-tatsama
tbh	tadbhava
ts	tatsama
voc	vocative
wd	word

5. General (authors etc.)

acc. to	according to
Bh. insc	Bhuvaneswar inscriptions
Bl	J. Bloch, author of *L' Indo-Aryen du veda aux temps modernes,* Paris, 1934 and *La Formation de la Langue Marathe* Paris, 1920
c	Caryā (the serial number of the *caryās* are taken from CP : M. M. Bose)
ch	chānda
coll	colloquial
conn	connected to, connection
Dict	Dictionary
Dt	District
e	early
extn	extension
fr	from
inf	influence

insc(r)	inscriptions (generally Oṛiyā inscr. from EOIS, if not otherwise mentioned)
intr(od)	introduction
J, Jāy	M. Jāyasī (1540 A. D) author of *Padmāvat* in Awadhī
Lāl	Lāldās Gupta (17th c. A. D), author of *Avadha-Vilāsa* in Awadhī
lex	lexicon
M, Mid	Middle
mss	Manuscripts
Mod	modern
MMC	Sri Manomohan Chakravarty
N	Nūr Muhammad, author of *Indrāvatī* (1757 A. D) in Awadhī
o	old
p	page
perh	perhaps
poss	possibly
prob	probably
Sarv, SN	Sarvānanda (12th c A. D), commentator of *Ṭīkāsarvasva* (TS) on Amarakośa
St	Stanza
T	Tulsīdāsa (16th c A. D), author of *Rāma-carita-Mānasa* in Awadhī
Tur	R. L. Turner.
Vid	Vidyāpati (15th c A.D)

D. LIST OF ORIYA INSCRIPTIONS CONSULTED

In EOLS[1]

A. *Imperial Gaṅga Family (A. D. 1077 ?-1435).*

King Anantavarma (A. D. 1010 or 1051) or, King Vajrahasta (A. D. 979 ?-1014) or, Later Vajrahasta V (A. D. 1037-1070)	Serial No. A (1051 A. D.)
(Lāṅgula) Narasiṃhadeva (A. D. 1238-1263)	S. no. 1[2]
(Niḥśaṅka) Bhānudeva I (A. D. 1263-1279)	S. no. 2
(Vīra) Narasiṃhadeva II (A. D. 1279-1305)	S. nos. 3, 4, 10 & Appendix 1
Narasiṃhadeva III (A. D. 1328-1352)	S. no. 5
Bhānudeva III (A. D. 1352-1378)	S. no. 6 & App. 3
Narasiṃhadeva IV (A. D. 1378-1405)	S. nos. 7, 8, 9

B. *The Solar Gajapati Dynasty (A. D. 1435-1540).*

Kapileśvaradeva (A. D. 1435-1467)	S. nos. 11-26
Puruṣottamadeva (A. D. 1467-1497)	S. nos. 27-41
Pratāparudradeva (A. D. 1497-1540)	S. nos. 42-48

C. *The Ministerial Dynasty (A. D. 1541-1568)*

Govindadeva (A. D. 1541-1549)	S. nos. 49-54
Mukundadeva (A. D, 1559-1568)	S. no. 55 & App. 11, 12

In IL

The Unpublished Sonepur Oriya Inscription of the time of King Bhānudeva ; K. B. Tripathi, Vol. 17, June, 1957 (Taraporewala Memorial Vol.) ; also the revised reading in OHRJ, Vol. X. pt. iv, 1962 in "Sonepur Stone inscription of Bhānudeva" : K. C. Panigrahi ; see also HBL p. 249 & TSOL Vol. III. introd. [not in EOLS]	A. D. 1278

1. A List of inscriptions from EOLS is here given only to have a bird's eye-view on the chronlogical order of the inscriptions. For the correspondences of the inscriptions in EOLS and SII see EOLS, Table III, pp. 389-390.
2. Also in JASB (N. S) Vol. XX, p. 43. and TAOPP p. 48.

In JASB

Two Copper-plate inscriptions of the King Narasimhadeva of Orissa : M. M. Chakravarty, Vol. LXIV, pt. i, 1895, pp. 149, 151 [EOLS S. 7, 8] (cf. also "Puri inscriptions" in AO. Vol. II. p. 165, Appendix). — A. D. 1384 & 1396

Fourteen Oriya Inscriptions : M. M. Chakravarty, Vol. LXII, 1893 [EOLS S. 11-12, 14, 19, 24, 26-28, 30, 36-37, 42, 42A, 51] — A. D. 1436-1542

In OHRJ

Oriya inscription on a Stone-image (with plates) : Satyanarayan Rajaguru, Vol. II pt. 2 1953 (not in EOLS) — A. D. 10-11th C.

Accession of Niśśaṇka Bhānu or Bhānu IV & an Oriya inscription of his 8th aṅka year : S. Rajaguru, Vol. IV pt. 3, 4, 1955 [EOLS S. 2] — A. D. 1263

An early Oriya Inscription : K. B. Tripathi, Vol. I pt. 3, 1952 ; also published in SII, Serial no. 1078 in Telugu Script [not in EOLS] — A. D. 1271

The Pārvati Temple inscription at Bhuvaneswar : B. V. Nath, Vol. III, pt. 3, 1954 [not in EOLS] — A. D. 1274

Sonepur Stone Inscription of Bhānudeva : K. C. Panigrahi, Vol. X, pt. 4, 1962, see also TSOL, HBL and IL Vol. 17, 1957 & 'Sonepur in the Sambalpur tract' : B. C. Mazumdar, 1911, p. 42 [not in EOLS] — A. D. 1278

The Kenduli Copper-plate Grant of Narasiṃhadeva IV of Śaka 1305 : S. Rajaguru, Vol. V pt. i, 1956. pp. 42-44. See also : Two Copper-plate inscriptions of the King Narasimha-

deva of Orissa : MMC, JASB Vol LXIV, pt. i, 1895 pp. 149, 151 [EOLS S. 7]	A. D. 1384
Three Temple Inscriptions from Bhuvaneswar ; K. C. Panigrahi, Vol. I pt. 2, 1952 (the third inscription is in Oṛiyā)	A. D. 1435-1470
An Oriya Inscription from Trisila near Agarpara : B. V. Nath, Vol. II pt. 1, 1953 p. 61 [not in EOLS]	A. D. 1470
The Garhpada Grant of Potesvara Bhatta By Purusottama Gajapati : P. Mukherji, Vol. II pts. 3-4, 1953-1954 ; also called Copper-axe head Grant. See also IA I (1872) p. 355 ; JBORS IV (1918) pt. iv p. 361 [EOLS S. no. 31]	A. D. 1483 or 1469-70.
An Oriya Inscription from Indupur : B. V. Nath, Vol. III, pt. 3, 1954 [not in EOLS]	1st half of 16th c. A. D.
The Oriya Inscriptions of Pratāpadeva and his father Govindadeva : S. Rajaguru, Vol. V pt. 4, 1956 pp. 213, 217-220 [EOLS S. 49-54]	A. D. 1541-1549
Three Inscriptions of the rulers of the Cālukya family of Orissa : S. Rajaguru, Vol. VI pt. 1, 1957 pp. 11-12 ; also published in SII Vol. X 739 p. 385 in Telugu [not in EOLS]	A. D. 1559-1568
Gajapati Ramachandradeva I : K. N. Mahapatra, Vol. VI pt. 4, 1957, containing Srijanga Stone Pillar inscr. pp. 249-250 [not in EOLS]	A. D. 1587-88
Bi-lingual Stone Inscription of the Baripada Museum : S. C. De, Vol. II pts. 3-4, 1953-1954 (also OHRJ Vol. VI pt. 4, 1957 p. 248) [not in EOLS]	A. D 1587

A Grant of land to Lord Jagannath of the time of Padmanābhadeva : S. C De, Vol. III pt. 1, 1954, [not in EOLS]	A. D. 1738-39
Bargarh Copper-plate of Maharaja Narayan Singh of Sambalpur (with plate) ; G. S. Das and S. C. De, Vol II pts. 3-4, 1953-54 ; also published in JBORS, Vol. XVIII [not in EOLS]	A. D. 1843

E. ORIYA DICTIONARIES AND VOCABULARIES

Purṇacandra Oṛiā Bhāṣākoṣa : G. C. Praharaja—A lexicon in 7 Vols. Cuttack, 1931-40

Abhinava Saraḷa Utkaḷa Abhidhāna (Oṛiā-Oṛiā) : Ramala Kar, Cuttack

Abhinava Oṛiā Abhidhāna (Oṛiā-Oṛiā) : Banamali Misra

Oriya-English Dictionary : R. J. Grundy, 1928

A Concise English-English-Oriya Dictionary : Ramachandra Acharya

A Comparative and Etymological Dictionary of the Nepali Language : Turner, London, 1931

Linguistic Suıvey of India, Vol. V pt. ii ed. Grierson.

F. ORIYA GRAMMARS

A Practical Handbook of the Oṛiyā Language : T. J. Maltby, Wymen & Co., Calcutta, 1874

Oṛiyā Grammar : E. C. B. Hallam, 1874

An Introductory Grammar of Oṛiyā : Rev. A. Sutton

First Lessons in Oṛiyā : A. H. Young, 1912

INTRODUCTION

A. SCOPE AND METHODOLOGY

The present thesis aspires to contribute something in the historical study of the Indian languages in the following ways :

(i) The comprehensive and elaborate study of Phonetics and Phonology of Modern Oṛiyā (standard dialect).

(ii) The historical study of Oṛiyā, old and modern, covering about 1000 years.

(iii) The study of the dialects of Balasore and Puri-Cuttack area (standard dialect), the Southern and Western dialect being already treated by Dr. K. B. Tripathi.

(iv) Employment of more than a thousand of comparative vocables of the eastern languages, old and modern, to show their relationship ; and to postulate the neo-Māgadhan features which are summarised before each chapter.

(v) Inclusion of old Marāṭhī vocables as far as possible without fancying any presupposed theory, with the idea that Marāṭhī might be connectcd to Oṛiyā in some respects, the political contact of the people being a late event of history. Here, I am inspired by Late Prof. B. C. Mazumdar, who, in his 'The History of Bengali Language' observed in the following way :

"I may notice however, that Oṛiyā, the origin of which must undoubtedly be traced to an Old Māgadhī speech, had developed in it some forms akin to modern Marāṭhī, centuries before Orissa came in contact with the Marathas : for example, the Oṛiyā forms, kariṇa (by doing) and eṭhu (from here) are closely allied to the Marāṭhī forms, karuṇa and ethun respectively" (p. 219).

As regards the methodology employed in this work, it requires a little clarification. Sir G. A. Grierson in his Foreward of 'The Origin and Development of the Bengali Language' by Dr. S. K. Chatterji nicely suggested the way of approach in evaluating the linguistic study of the NIA languages. In his words—"There are two possible lines of investigation of this subject. In one, we can follow the examples of Beames and view all the forms of speech as a whole, comparing them with each other and thence deducing general rules. The other is to follow Trumpp. Hoernle and Bloch in taking one particular language as our text, examining it exhaustively, and comparing it with what is known of the others...The palace of comparative grammar cannot be built without bricks and the bricks are made up of the facts of each particular language."

My way of approach in this perspective leans on either side. The main object of this work is to present the Phonology of Oṛiyā with its historical stages in the line of Dr. S. K. Chatterji and J. Bloch. On the other hand, it is a comparative treatment too, in the line of Beames, the difference being only of degree. For, it will not escape one's notice that it is a comparative phonology only of the eastern Aryan languages in the light of the 'so-called' Māgadhan inheritance. In treating Óṛiyā, I gave in to the temptation of positing Oṛiyā in the background of its sister languages when the ready materials of the same are within easy reach. Nevertheless, in selecting the eastern languages, I think, I have escaped the limitations of the earlier works in which all the NIA languages had been treated of in a remote vision of sweeping generalization. It is needless to mention that a wide range of comparison of all the NIA languages may be to some extent fruitful in case of Morphology as some of the prescriptive grammars are enough for the purpose of deducing general principles; but in case of Comparative Phonology, the weakest part of the earlier works represented by Beames, it is not so easy as it appears to be. A Comparative Phonology in geo-historical basis is what I have tried to present here.

I am also aware of my limitations. This work lacks in representing Magahī cognates of and its general relation to Oṛiyā as the materials of the same were not at hand at the time of preparing manuscripts. Anyway, I have tried to include some of the facts of Magahī Phonology in this chapter which happened to be published as the final part of print.

B. POSITION OF ORIYA AMONGST THE INDO-ARYAN LANGUAGES

Oṛiyā is one of the most important dialects of Indic group of the Indo-European language for the purpose of an historical study of the NIA speeches. It is very closely related to Bengali, Assamese, Maithilī and Bhojpurī. The affinity among the eastern lauguages had its seed even in the pre-Christian era as revealed in the Aśokan inscriptions, and specially in Śutanukā inscriptions. (For the Prācya characteristics, *see* ODBL p. 54). The bulk of the religious literature of Ardha-Māgadhī Prākrit as well as Māgadhī Prākrit in the Sanskrit dramas, employed in the transitional and 2nd MIA represented the second phase of the evolutionary course of the modern eastern languages.

Regarding the genetic relationship of the modern eastern languages, Hoernle and Grierson suggested, after pointing out the similarities of these languages with those of the Dardic and Southern languages,

that they belonged to the outer group of the Indo-Aryan dialects as opposed to the speeches of Inner or central group.

Following the line of Grierson, Bloch and Chatterji suggested that Apabhraṁśa is the immediate stage of Prākrits representing third stage of MIA. The hypothetical chain of development of Indo-Aryan is after Grierson: Vedic Skt. (OIA)>MIA (Pāli and early Pkts.)>Pkts. (MIA II)> Ap. (MIA III)>Vernaculars (NIA). Thus all of the eastern languages are the descendants of the postulated Māgadhan Apabhraṁśa of about 7th c. A. D (cf. ODBL ff 22).

Dr. S. Sen taking his cue from Jacobi proposes, that the literary Pkts. are almost based on artificial generalization of the second phase of MIA and stand in the same relation to MIA proper as Classical Skt. stands to Vedic. And, thus Ap. comes in the direct line of development from early or 1st MIA (Aśokan & Pāli, 250-I B. C) and later inscriptional MIA II (Khāravela's edicts, Niyā Pkt. etc. of 1-350 A. D i. e. transitional MIA of Dr. Chatterji). Hence, Ap. represents the third stage (350-650 A. D. i.e. the 2nd and 3rd stages of Grierson) from which according to Dr. Sen, evolved Avahaṭṭa (650-1000 A. D) which is the proto-NIA stage. (cf. Comp. Grammar of MIA p. 4 1st edition ; and Journal of the Oriental Institute, Baroda, Vol. XI No. 3 March, 1962 pp. 213-214 *see also* Jacobi : Introduction to Bhavisatta Kaha).

Leaving aside the task of postulating Māgadhan Apabhraṁśa with *a priori* reasoning or of establishing the relationship of Avahaṭṭa and the eastern languages, what I have tried here is to present by inductive methodology the phonological characteristics and tendencies of a hypothetical language, which I have termed 'Neo-Māgadhan', may it be itself or connected to Māgadhan Apabhraṁśa or Avahaṭṭa. This language is the common parent of the modern dialects of the eastern Aryan languages viz. Bengali, Assamese, Oṛiyā, Bihārī and Awadhī ; and Oṛiyā is viewed always in this retrospect. It may be surmised that the bulk of the literature of the *Caryās* might find its closest affinity with this Neo-Māgadhan language. Of course, the actual relationship, either between the *Caryās* and Neo-Māgadhan or between the *Caryās* and Oṛiyā, has not been in these pages proposed to be established as this is not within my scope ; but, the emergence of Oṛiyā, even in 10-11th century A. D. raises an important question as to why the so-called old Bengali texts of 10-12th century A. D. with all the common features of the eastern languages and the archaisms of Avahaṭṭa should not be taken as some kind of literary forms of the spoken Neo-Māgadhan language. However, without going into the dispute of right exerted in favour of stray affinities of the modern eastern languages in the verses of the *Caryās*, which seems to be solvable after a thorough investigation of all the features, Phonetics, Phonology,

Morphology or Syntax, let us find out some phonological characteristics of the so-called Neo-Māgadhan or proto-eastern language which may be helpful in future in singling out the unique place of the *Caryās* in the eastern languages.

C. NEO-MĀGADHAN RE-CONSTRUCTED

The Compatative study of the Phonemic system of the modern eastern languages helps us in re-shaping the early history of the proto-stage. From the historical point of view, the proto-stage may be called Neo-Māgadhan (or Māgadhan Apabhrainśa as termed by Grierson and Dr. Chatterji). The Phonetic system of Māgadhan Apabhraṁśa has elaborately been discussed by Dr. Chatterji (cf ODBL ff 137 pp. 257-259). An attempt has been made here to revise, elaborate and throw further light in reconstructing the phonetic system of the Neo-Māgadhan language which was in all likelihood the following :

VOWELS

	Front	Central	Back
Close	i		u
Half-close	e		o
Half-open	ɛ	ə	ɔ
Higher-open	æ	ʌ	ɒ
Open		α :	

Nasalised forms of the vowels also occurred.
Length of the vowel was not phonemic.

CONSONANTS

	Velar	Retro-flex	Palatal	Dento-Alveolar	Alveolo-palatal	Bi-labial	Glottal
Stops	k, g kh, gh	ṭ, ḍ ṭh, ḍh		t, d th, dh		p, b ph, bh	
Affricates					č, ǰ čh, ǰh		
Nasals	ṅ, ṅh	ṇ, ṇh		n, nh	ñ	m, mh	
Laterals		ḷ		l, lh			
Flapped		ṛ, ṛh		r, rh			
Fricatives				s	š		h
Semi-vowels			j			w	

Regarding the *Vowels,* it is very difficult to evaluate the phonetic nature of the earlier stage of the proto-eastern languages. But it may be well presumed that the tendency to turn the original -a- of the nature, open, back, medium or open, front, spread [ɑ, a] illustrated in Vedic and in addition, *Saṁvṛta* or closed *-a-* [ʌ] in later Sanskrit and MIA, developed into an *-a-* [ɔ] in the eastern languages as contrasted with [ʌ] in the greater parts of India (*see infra*). This [ɔ] is at present found in Bengali, Assamese, Bhojpurī, Magahī, Maithilī etc. as opposed to Awadhī [ʌ]. In the proto-stage there possibly developed by the side of pan-Indian [ʌ]—the half-open, back, spread in nature, a variety of a bit higher, open, back, rounded [ɒ] which finally yielded to nearly open, back rounded [ɔ].

Another eastern development is [æ]—the sound midway between half-open and open, front with lips in the position spread or medium. The currency of the pan-Indian half-open, front, spread or medium [ɛ] almost in all the languages (except Marāṭhī), as well as in Assamese and in the various dialects of the other eastern languages justifies its well-founded substratum.

The neutral Vowel [ə]—the sound nearly half open, almost centralised

with lips spread seems to be developed medially or finally in unstressed syllable. This Vowel ultimately disappeared in Bengali and Assamese owing to heavy stress, while it has a tendency to disappear, what remains is mearly the explosion of the previous consonant in the other eastern languages ; (compare [ʌp ə n ɑ:/ɑ p n ɑ:] in Awadhī and Bihārī languages ; [p ɔ t:h ə r ə, k ɔ ṇ ə/k ɔ ṇ] in Oṛiyā.

As regards the *Consonants*, Neo-Māgadhan -ṇ- is in vogue at present only in Oṛiyā (*See* pp. 185, 186, 233 also Guj. Phon : Turner, JRAS, 1921 ff 48) ; but it was also found in the earlier documents of Awadhī, Bhojpurī and Bengali (cf UVP introd, ff 27, ODBH ff 227 ODBL ff 286, also pp. 526-527). In Maithilī. the loss of -ṇ- sound took place at least during 14th century (cf. VRC introd. ff 12).

Neo-Māgadhan -ḷ- developed from Sanskrit r, l, ḍ in intervocalic positions. Modern Oṛiyā in contradistinction to other eastern languages is characterized by the preservation of this sound. That the sound -ḷ- was also extant in early Maithilī may be proved in the following ways :

(i) Interchange between -ṛ/ḍ- and -l- in VRC viz. O. Mai ghola = ghoṛa < Skt. ghoṭaka etc.

(ii) Interchange between r, l, and ṛ in the specimens of Vidyāpati viz. ghola, ghorā, ghoṛā < ghoṭaka

(iii) The development of r, ṛ in modern Maithilī from earlier -l- viz. Mod. Mai. kapāra OMai kapāla (VRC) < Skt. kapāla ; Mai. tāṛī, baṛada, phaṛa, kheṛi < Skt tāla, balīvarda, phala, khela (FM p 163).

(iv) And the use of -ḷ- in Sarvānanda's Ṭīkāsarvasva, viz. siṅkaḷi (ii, 8,42), jumāḷa (ii, 9,69) etc. [*See* FM pp. 23-25, 138 for the detailed treatment]

Further, the proto-Bengali seems to be characterized by this sound -ḷ- as noticed by Dr. Chatterji in the development of Skt l > ṛ in Bengali as in tāṛi 'fermented palm-juice' < Skt. tāla (ODBL ff 292) cp. Or. tāḷə, tāṛi Ass tāri Mai Bh tāṛī (cp Skt tāla pk tāla. tāḍa). Also compare B. kaṛāi/kalāi (< Skt. kalāya pkt kalāya Oṛ kaḷā (muga) etc. Mai karāi, kalāi ; B. paylā/payṛā (< Skt. *prathila pkt. pahila) Or. pahila, pailā, Ass. pahila Mai. Aw. pahil ; B. golañca Or. goḷəñca Ass. guṛācī 'a kind of creeper' (Skt. gulañca-). At present Oṛiyā only possesses this sound which is sometimes interchanged with -ṛ- (compare Or. koḷa, koṛa < Skt krcḍa ; Or. biṛāḷa, birāṛi < Skt biḍāla), though these -ṛ- and -ḷ- are two distinct phonemes (compare Or. baṛa 'strength'/baṛa 'big'). The sources of Neo-Māgadhn -ḷ- with their parallel developments may be shown thus :

(i) Skt r > Or. ḷ Bh Aw Mai Mag. r B Ass l as in Skt haridrā > pk hariddā, haliddā, -ī, haladdā, -ī > Or. haḷadi Mag Aw Bh hardī Mai haradi but B halud Ass hāldhi cp Hindī haldī.

(ii) Skt l>Or ḷ (sometimes ṛ) OMai ḷ (often represented by ḍ and l) Mod. Mai ṛ, r Mag. Bh. Aw r B l Ass l as in Skt balivarda>pā pk balivadda pk balidda, baladda>Or. baḷada OAw balada Mai baṛada Bh baradh Mag baradā B balad Ass balad(h) ; Skt rakṣapāla>pk rakkhavāla>Or rakhuāḷa Bh rakh(a)wār, Mai rakhabāra Mag. rakhawār(ā) B rākhāl Ass rākhowāl ; Skt śṛṅkhala>pk saṅkhalā, siṅkhalā >Or. śikuḷi, siṅkuḷi, śāṅkoḷi OB sikali TS sīṅkaḷi (Sarvānanda) B śikal Ass śikali OMai siṅkalī, siṅkara Mai sikkari Bh sīkar Mag sikkaṛ, sikaṛī ; Skt biḍāla> pā. biḷāla, biḷāra pk biḍāla, bilāḍa, bilāla, biṛāla>Or biṛāḷa, birāṛi, birāḷa B. biṛāl Aw bilārī Ass. birāl, birali.

(iii) Skt ḍ>Or ḷ (sometimes ṛ) OMai l, r OAw l Aw Bh Mag r Mai r, l, ṛ B Ass l as in Skt ṣoḍaśa>pā soḷasa pk soḷasa, soḷaha, soḷā> Or ṣoḷa O Or. sohaḷa, sohaṛa OMai solaha, sorahiā (adj.) Mai. sōraha, solaha, soṛaha (cf. FM p. 163) Mid Aw soraha Aw sōrā, sōrah Bh sōrah, sore Mag. sōrah Ass ṣola B ṣola, ṣolo ; Skt kroḍa>pk kola>Or koṛa, koḷa OAw kolā (loc.) Bh kōrā Mai kōṛā, kora Mag. kōra B kol Ass kolā, koṛ etc.

Regarding the aspirated nasals, mh and nh, both exist in modern Oṛiyā, Maithilī, Bhojpurī, Magahī and Awadhī ; but in the present form of Oṛiyā, -mh- is very rare and non-contrastive (unlike the Bihārī speeches), usually developing into -mbh- [cp. Or. umheibā 'to lit (a fire)', um(b)hei 'brazier'] or, losing the aspiration, compare Or. āme beside āmbhe from earlier *āmhe <inst. pl. asmābhiḥ and Vedic nom. pl. asme. Similar is the case with -nh- in Oṛiyā. In this respect Bengali and Assamese have totally lost the aspiration. For the exemples of aspirated nasals in other eastern languages, *see* ODBH ff 56, 57, FM ff 165, 168 E.Aw ff 64, 65, MVK p. 5 UVP ff 31 etc.

As regards the Neo-Māgadhan -rh- and -lh-, Oṛiyā lacks the former sound unless it is a secondary development in conjunction with a transferred -h- (cp. Or. bārhā<varāha). The sound -rh- was also never fruitful in Bengali as opposed to its phonemic status in the other eastern languages—Maitilhī, Bhojpurī, Magahī, Awadhī and Assamese (cp. E.Aw ff 72 ODBH ff 61 FM ff 173, also Maithilī Phonetics—IL vol. VIII ff 33, MVK p. 5, FA ff 478).

The sound -lh- is frequent in Oṛiyā like Bhojpurī, Magahī, Maithilī and Awadhī but has not acquired the phonemic status like its other sisters. Bengali and Assamese do not possess the same at their present form (cf. E. Aw ff 75, ODBH ff 60, FM ff 176, also Mai. Phonetics, IL vol. VIII, IL ff 31, MVK p. 5).

Oṛiyā, Maithilī, Magahī and Awadhī agree in keeping the retroflex flipped sound -ṛh-, a distinct phoneme. Bengali retained the sound

even in the middle stage of its evolution after which the aspiration tends to be lost. In Assamese, -ṛh- has changed into -rh-, also a distinct phoneme (FA ff 478).

This preservation of aspiration in nh, mh, lh, rh and ṛh is a continued tradition of Prākrit speech habit (cf. Pischel : GK ff 330-332) and Oṛiyā stands between the two extremes viz. Bengali and the western Māgadhan languages—Bhojpurī, Magahī. Maithilī along with Awadhī.

The most important feature, as supposed by Grierson, Dr. Chatterji and others, evolved in the so-called Māgadhan Apabhraṁśa is the change of r>l inherited by the eastern languages from the phonetic habit of Māgadhī Prākrit and as such the modern descendants of Māgadhī Apabhraṁśa had betrayed in their earlier history this historical distinction now lost due to the constant influence of the Northern languages and Sanskrit (cf. ODBL pp. 238, 536-539). But this assumption requires further investigation on the face of the following facts :

(a) The cognate words in the eastern languages showing the change, r>l are few in number.

Few of them are : B. call ś (Skt. catvāriṁśat) Aw Bh cālis Mai cālisa Mag cālīs etc, and the other numeral compounds belonging to forty groups ; Or. pelibā (pellai<prerayati) B. phelā 'to throw' Mid. B pel- Ass. pelāiba OAw pelai Aw pelab Bh pelal ; B śālik 'a bird' (śārikā pā sālikā, sāḷikā pk. sāriā, sālahī)B śālik ; but Or. sāri OAw sārī ; B nāch<lāch <rathyā ; Mai. nāt< lāti<latti<rātri ; B.pācil<prācīra etc.

(b) Existence of -r- and -l- in all the eastern languages instead of preserving the one -l- sound exclusively.

(c) Preponderence of -r- sound in the Bihārī languages showing the opposite direction of the phonetic change, r>l. Moreover, Hindī and Maithilī in many cases, have alternative forms with r/l (<l) ; whereas Oṛiyā shows -ḷ- (<l), sporadically alternating with r/ṛ equivalent to Bengali-Assamese -l-, Awadhī-Bhojpurī-Magahī -r-. To cite few examples :

Or. āṛi 'ridge in a field' (Skt. āri) Ass āli· B. āl Mag. āl Bi. Mai. ār, ārī, āl H. ārī, ālī.

Or. āñcaḷa 'border of garment' (Skt. añcala) B Ass H ā̃cal Mag. ā̃carā, ā̃car Bh ā̃car Aw ā̃car 'breast' OMai ā̃cara Bi ā̃car, ā̃crī.

Or. ujaḷa 'bright' (Skt ujjvala) B ujal Mag Aw Bh ujjar Mai ujjar, ujjarakā 'white' OMai ujalo H. ujjal, ujlā.

Or. kājala,-ra 'collyrium', kajjaḷ, kajaḷa 'lampblack' (Skt kajjala) Mai Bh kājar B Ass kājal Mag kajarī H kājal, kajjal, kajlā.

Or. kapāḷa 'forehead' (Skt kapāla) B Ass kapāl Mai Mag kapār OAw kapāru.

Or. kambaḷa 'a blanket' (Skt kambala) B kambal Mai kammal, kammar, kamari, kamariā Bh kamarā,-rī Aw kā̃barī Mag kamarī, kammar H. kambal, kammal..

Or. kudāra, kodāḷa 'a spade' (Skt kuddāla) B kodāl Mag Bh kudār Aw kudāri Mai kodār,-ri H kudāl kudār.

Or. kaḷā 'a plantain' (Skt. kadalī) Sambalpurī Oṛiyā ker ā Mai Aw Bh Mag kerā Mai kaṛari B kalā Ass kal, kalā H. kelā.

Or. kuṛāla, kurāṛha,-ṛhi, kuṛāri 'an axe' (Skt. kuṭhāra) B kuṛul Bi kulhārī Mag kurur H. kulhāṛā.

Or. cāūḷa, cauḷa, cāura 'rice' (Skt *camala) B cāl Mai Bh Mag. cāur H. cā̃wal, cāwar.

Or. jaḷibā 'to burn' (Skt. jval-) cp. B. jaluni Ass jalani Aw Mai jarab Mag jaranī H. jalan.

Or. ḍāḷa 'branch of a tree' (Skt ḍāla) B. Ass ḍāl Mai ḍār, ḍāri, ḍābḷā, ḍhāḷā Aw Mag ḍār Bh ḍāṛhī H. ḍāl.

Or. tāḷu 'palate', tāḷuā (Skt tālu) Ass B tālu Mag. taruā H. tālu OH tārū.

Or. dubulā 'weak' (Skt durbala) Bh Aw Mag dubar B dublā H dublā, dubrā etc.

It seems from the above that in the Neo-Māgadhan stage the earlier tendency to change each -r- to -l- was not finally complete (especially in initial pasition ?) in the speech of the common folk. However, in this stage only the phoneme alveolar -l- occurred and the cerebral -ḷ- occurred medially only. The speech sounds -ḷ- and -l- together formed one phoneme as -ḷ- is mainly in complementary distribution with -l- (just as -ṛ- with -ḍ- with the same letter -ḍ-). Now in the later stage -ḷ- yielded to -r- or, -l- in free variation and this emergence caused revival of -r- and -l- as distinct phonemes—Awadhī, Bhojpurī, Magahī generalizing -r-, Bengali, Assamese -l- while Maithilī (like Hindī) vacillating between-r/l-.

It is significant that rhotacism of -l- in Bhojpurī, Magahī and Awadhī is frequent only in medial positions so that the development— l > ḷ > r might be presumed. Nevertheless, the lambdaism of -r- though irregular, is to be explained as the survival of the early Māgadhan tendency. The vacillation of r/l in Maithilī as well as ṛ/ḷ (sporadically) in Oṛiyā beside the develoment of ṛ < *ḷ < Skt l in Bengali, Maithilī etc. seems to suggest that this tendency started in the eastern area of a wider range before the specialization of either -r- or -l- in regional basis, which strongly influenced even the Hindī-speaking area causing the same vacillation of r/l. Possibly, other -ḷ-speaking areas in the west viz. Mahārāṣṭra, Gujrāṭ etc. similarly

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played an important role in this matter and spread into the central region. Moreover, it should be noted that the neo-Māgadhan -l- corresponding to OIA r are so few in number that it cannot be imagined that Northern influence or influence of Sanskrit should exercise such a great role as to eliminate nearly completely the genuine native forms (*see further* FM pp. 24-26).

Māgadhan -ś- which was a modification of Skt. ṣ. s even from pre-Christian era, as represented in Śutanukā inscription had survived in the early history of the modern eastern languages (ODBL ff 257). This is to be confirmed from the following facts :

(a) Employment of s, ṣ for ś in the the *Caryās* viz. OB ṣiāla < śṛgāla, ṣahaje < Mg. Pkt śahaye<sahaja etc.

(b) Also is to be noted the use of -ch-, a palatal sound for -s- in OB and OMai ; cp OB chaṛa (c.9) <Skt. ṣaḍ- ; OMai dhanachī =dhanāśī<dhanaśrī cf VRC ff 21 introd.

(c) Kaithī, which is the most widely used script in Bihar, has the only character of -ś- to be employed for the three sibilants of Skt.

(d) Interchange of -ś- and -ch- in the eastern languages. Of course, the tendency is quite old in the history of Indo-Aryan (ODBL ff 257). Even in MIA, the change of ś. s to ch (*vide* Pischel : GK ff 211) is ascribed to the influence of Māgadhan proper, though the original distinction is completely lost with the intermixture of the IA languages. For instance, Mai chɔ:ra, chōrā, chabarā, Or chuā B chāoyāl, chā Ass chāw (=sāw), chali, chawāl Mag. chōrā etc.<Skt śāva- pkt. chāva with the extension of -ch- in other IA branches. Also is to be noted the use of -ch- for Skt. s, ṣ in the history of NIA numerals.

But in spite of a welter of confusion, few examples may be collected from here and there which reveal the original traits of having the development of s, ś to -ch- confined within the eastern languages, for instances,—

Or. chiñcā 'sprinkling' B chẽcā Mai chicāc, chīcā, chiccā but Ass sic (= xis)<Skt siñca- pk. siñcai, compare H sīcnā P. siñjṇā L. sijjaṇ Guj. sīcvũ Mar. śīcṇẽ (*vide* ND p. 604).

Or. chāñca 'mould' B chāc Mag. chāch but Mai. sāca Ass sāc (=xa:s) <late skt. sañcaka pk saṁcaa ; but compare Nep. Guj sāco H. P. sācā P. sañcā, saccā Mar. sācā (ND p. 596).

Or. chāmu 'in front of' Mid B chāmu (ODBL pp. 472, 307) Ass. chāmu (=sa:mu)<Skt. sammukha pā sammukho pk saṁmuha) but compare Nep sāmu H sāmuhe P sauhẽ Sindhī samhô Guj. sāmũ Sgh hamuva Mar. samor (ND p. 600).

Or. chepa 'spittle' B chep but Ass sep (=xep)<Skt. śleṣmā pk seppha, sepha, sembhā, simbha, silimha) but compare Nep. sep H sībhā Mar. śẽb, sem Sgh sem (ND p. 620).

Or. chatu 'flour of parched pulse' B chātu Ass chātuguri cp. OAw sātu Aw setuā Mai sātu (<lw ?)<Skt śaktu, saktu pkt. sattua); but in Nep. H. Mar. Panj. Sindhī, Guj., the base is sat-/sāt- (ND p. 578).

Or. chañceibā 'to cleanse for purity' B chôcāna, chũci 'ceremonial cleanliness' (ODBL p. 472) Mai chôca<Skt śaucika, śuci.

Or. chuñci 'needle' B chũc (Skt. sūcī pā sūci, sūcikā pk. sūī) but compare Nep. siyo etc. (ND p. 608).

Or. chipi 'cork' B chipi (Skt śipre cf ND p. 607) etc.

The pronunciation of -ṣ- as -kh-, a non-Māgadhan feature is also to be met with in the eastern languages and these are evidently imported as dialectal loanwards from the western languages in earlier times (cf. ODBL p. 460). For instances, Or. B. Bhoj. bhākhā (bhāṣā); Bhoj. Mid B dokh (doṣa); Ass ākhudi 'drugs' (auṣadhi), ākhad 'medicine' (auṣadha) [*vide* also FA ff 101, 446); Mag. barkhā (varṣā), bīkha-dhar (viṣa—), mānukh, mānus (mānuṣa) etc.; Mai barkhā (varṣā), rōkha (roṣa) etc. (FM p. 150). For further examples in Oṛiyā, *see* p. 150; *see* also E. Aw. ff 83.

As regards the phonetic value of the OIA *conjuncts*, viz. kṣ, jñ etc. an assessment may be made from a comparative study of the eastern languages and such an attempt has been done in the proper place; *see* under "Pronunciation of few OIA consonant-clusters in Oṛiyā" (pp. 143-146); but it requires further elaboration as regards OIA -ts- and -tt-.

The OIA group -ts- is used to be pronounced as -cch- in Bengali Oṛiyā, Maithilī and Assamese. This is, no doubt, a Prākrit tradition of varying importance (cf. ODBL ff 471). For instances, O. Or. maccha (matsya, EOLS), mod. Or. uccha (utsa, utsava), mauchā, mauchaba (mahotsava) [*see* also pp. 145, 156 for ts>ch in *sts.* words]; B kucchā (kutsā), bacchar (vatsara), kucchit (kutsita) etc. (ODBL p. 471). The spelling at least, in some words of Assamese with mutated pronunciation at present (i.e. ch=s) revèals the earlier history viz. kucchā, kucchit, bibhach 'ugly' (bībhatsa), uchargā (utsarga) etc.; compare also Mai uchāha (utsāha) etc,

But what is more interesting to notice, is that in many cases dissimilation of -cch- to -śc- takes place in colloquial speech in the vulgar pronunciation of Bengali (ODBL ff 301) as well as in Oṛiyā; for instances, Or. uścaba (utsava), kuścita (kutsita) etc. Bengali tuśca for tuccha, uścāran for uccāraṇa (ODBL ff 301). Here, the tendency of Maithilī

is also worth noticing. For, in Maithilī -hy- is pronounced usually as -śj- which is definitely a development of jjh<hy as in other eastern languages ; compare Mai bāśja<vāhya, guśja<guhya etc. (FM p. 156).

Similar development of tt>st which is a vulgar pronunciation in Bengali, as in ekastra, ekastar for ekatra (ODBL ff 301), had spread in the standard colloquial pronunciation of Oṛiyā so vehemently, especially in the numerals (compare Or. bāstari for B bāhāttar '72'. *See* under Dissimilation p. 141) that one may deem why it should not be taken as the relics of the phonetic habit prevailed in Māgadhan Apabhraṁśa.

In Oṛiyā and other eastern languages there is an interchange between the palatals and the gutturals in a small number of words, especially of *Deśī* origin, connected in meaning and probably also in etymology. The gutturals seem to be older souuds. We are not sure if the change is caused by the influence of Telugu (compare Canarese kinna 'small' Telugu cinna Tamil śinna *vide* Caldwell: CGD pp, 151-152). The change of gutturals in the place of articulation is rather unusual in IA and where it at all occurs, it occurs as a conditional change. In a solitary example of pkt. cilāda, cilāa<Skt kirāta, the habit of k>c is seen to be universal (Pischel : GK ff 230). The same tendency is found in Pan-Indian development of Skt. kirātatikta Skt. lex. cirătikta>MIA *cilāa-titta>Or. ciràitā, ciretā B. cirătā TS ciraitā, cirāyita (Sarvānanda) Ass ciratā Nep. ciraito, cireto H cirāetā, ciràitā P. caraitā (cf ODBL ff 165, 471 ND p. 177). In northern Gujrātī k, kh, g before or after i, e, y become c, ch, j etc. (Turner : Guj. Phon. ff 41) ; compare Guj. dicro : dikro 'son', khetar : chetar 'field' etc. compare also O Mar ceṇḍū (kanduka) [*vide* OMR ff 18]. Examples from Oṛiyā :

Or. lañjā 'tail' B lej, lejuṛ Ass nej, negur cf Skt. lāṅgula/lañja.
Or. cuci B cũci cp Skt. cucuka 'nipple' and kuca
Or. copa 'anger' cf Skt kopa 'blow with a sword' cp B cop, cob 'blow', chobal 'bite'.
Or. lucibā to hide' cp B lukāibā cp late Skt lukvāyita <*luk-ya ?
Or. yocibā beisde yokhibā 'to add' (yuj, yuk-).
Or. choṭā 'lame' cp. B khôṛā.
Or. jhumā 'faint' cp. B jhim, nijhum 'silence of sleep' beside ghum.
Or jhumuki beside ghumurā, ghuṅgura cp. B jhumur beside ghuṅur 'bell for feet'

A peculiar linguistic phenomenon is seen in the reversion of dentals into palatals. The habit is old as the same is found even in Prākrit (Pischel : GK ff 216). But possibly the tendency is of eastern origin, for instance, compare the development of Skt. takṣati (to Pischel*tyakṣati) >pā tacchati pk tacchai, takkhai 'builds'; the initial -t- is retained in Nep. Kāś. Pañj Lahndā, Guj. Mar. and Hindī (*vide* ND p.278) whereas

B Ass Bhoj and Oṛiyā show cāc(h)e, cāc, cāch, cāñchibā respectively. But the instances of pkt t>c may be explained as the assimilatory influence of the neighbouring palatal. In the modern eastern languages, the development of t>c takes place sometimes without any associative influence of the palatal; compare Mai. chuccha 'empty' (tuccha MIA cuccha, chuccha) ; chājā<chāda ; chījā <cheda, *sts.* gajādhara <gadādhara (FM pp. °154-155) ; for examples in Bengali t>c *see* ODBL<pp. 482-483). In Oṛiyā the development is more systematic and developed. For the treatment of t>c, d>j, dh>jh *see* pp. 153-54, 158, 159, 160.

The reverse changes of c>t, j/y>d and jh>dh in initial and medial positions are extremely Oṛiyā in nature. Dr. Chatterji has quoted a few examples of c>t in folk pronunciation of Bengali viz. tikicche<cikitsā, or, j>d viz. danāi < Janārdana (ODBL pp. 503, 506); but they are not so fruitful as in Oṛiyā. For the treatment of Oṛiyā c>t, j>d and jh>dh *see* pp. 169, 174, 175.

Of course, in Prākrit, the above tendency is seen to occur sporadically (Pischel : GK ff 215). But it may be argued that it is due to the influence of the Dravidian habit spreading from south to North in the Neo-Māgadhan stage if not from earlier. In Telugu, Marāṭhī and southern Oṛiyā, -c- is pronounced as -ts- and -j- as -dz- (Caldwell p 141). It may be presumed that the dentals have developed after the elision of the sibilant-elements.

The interchange of dentals with cerebrals is not uncommon in NIA. The cerebralization of the dentals without any assignable cause is seen to happen even in Skt. and such forms greatly increse in MIA (Turner : Guj. phon. , ff 44. JRAS, 1921). But Oṛiyā stands apart from the other eastern languages in retaining in many cases the original dentals which have become cerebralized in the latter. In Bengali, -dh- sometimes inerchanges with the cerebral -ḍh- initially in some cases. In these cases, the dentals seem to be original ; compare Bengali dhiṭ/ḍhiṭ (dhṛṣṭa), dhôṛā/ḍhôṛā (dundubha) [ODBL p. 507]. Not in all cases, the cerebralization is due to the assimilatory influence to a following cerebral. Oṛiyā however, shows a more elaborate preservation of the original dentals in contradistinction to other eastern languages. For instances,—

Or. tākuṛi 'iron pin in spinning wheel' (Skt. tarku pk takku) cp. Mai ṭāku 'spindle' Bh ṭekuā Ass ṭākuri B ṭāku, also takli ?

Or. thāṭa 'bamboo framework for decoration' (*traṭṭa Deś, ṭaṭṭī 'fence', ṭaṭṭiā 'screen' or<taṣṭa ? ND p. 250 ; to Chatterji sthā+tra *vide* ODBL p. 491) B ṭhāṭ Ass ṭhāṭ (h) 'crowd of army with followers' Bh ṭhāṭ 'style'.

Or. dhiṭa (dhṛṣṭa pk dhiṭṭha) Bh dhīṭh B ḍhiṭ, dhiṭ.

Or. thaṭṭā 'joke' B ṭhāṭṭā Ass ṭhāṭṭā ; -ṭh- also in H. P. S. G. M.

Or. thaṇḍā 'cold' cp. B ṭhāṇḍā Bh ṭhaṃdhā Mai. ṭhāṛha, ṭhaṇḍhā Aw ṭhaṇḍ (Skt. stabdha ? with nasal possibly from stambh pk thaddha, thaḍḍha, ṭhaḍḍha ; ND p. 249).

Or. thuṇṭhā 'maimed' (pk ṭhuṇṭha 'stump', tuṇṭa 'maimed') cp. B ṭhũṭā Ass ṭhũṭi 'sprout.'

Or. thaṇṭa 'beak' (Skt. troṭi with the influence of tuṇḍa) Ass ṭhôṭ B ṭhôṭ Mai ṭhôṭa Bi ṭũṛ 'beard of wheat'.

Or. taṇṭi, toṭi 'neck' (Skt lex. troṭi 'beak') cp. B ṭũṭī.

Or. dhimā 'slow' cp. B Ass ḍhimā.

Or. dhāndolibā 'to search' cp. B ḍhôṛā cp. O Mar, dhāṇḍolitā (<adhi+hṛ cf. OMR p. 215).

Or. dhaṇḍā 'a kind of snake' (dundubha) B Ass ḍhôṛā etc.

Oṛiyā and Maithilī agree in developing a common feature, as shown below, which possibly reveals the neo-Māgadhan feature. The original intervocal-p, b-, developing into MIA v/w, are vocalized to -u- through an intermediate *W on the one hand, and a plosive -b- on the other. Oṛiyā in such cases of vocalization sometimes develops h-glide. Bengali usually elides the glide -W- resulting in the contraction of the contiguous vowels. The feature of course, is common to Bengali, Assamese, Maithilī and Bhojpurī too, though Bhojpurī has retained intervocalic -W- in most cases. But still the vocalization, though rare in Bengali, reveals the earlier history of these languages; compare Mid. B kauṛi B ka'ṛi<kapardikā, dauṛ-< drava- in all the branches. For the detailed treatment *see* pp. 61-62, 67-68, 62, 79, 122.

Oṛiyā has evolved a peculiar tendency—no doubt, a neo-Māgadhan feature—in mutating Skt. ăpā, ăbā>. *ăWā>O. Or. oā mod Or. uā. Here Assamese resembles Oṛiyā in having -owā- (F A ff 241). In Bengali cases of such type of change are also found (viz. B taroyāl Ass tarowāl Or. taruāla<Skt taravāri etc.) For the detailed treatment *see* pp. 62, 69.

A comparative study of few vocables had already revealed the fact that the eastern languages were diffenentiated from the rest in showing some peculiar phonetic tendencies. For instances,—

(a) The phonetic tendency ś>ch, as shown before in the study of cognates under Oṛiyā chiñcā 'sprinkling of water', chāñca 'mould', chāmu 'in front', chepa 'spittle', chatu 'flower of parched pulse' chañceibā 'to cleanse for purity'.

(b) The palatalized form of Skt. takṣati, *tyakṣati pkt. takkhai, tacchai represented by Or. cāñchibā etc. in the eastern languages as opposed to √tach in the non-eastern languages.

(c) Peculiarity in having different phonetic preservations, viz.

Or. kichi O. Or kichu (NC, GBG) OAw kichu Bh Ass B kichu Mai kicchu 'a little' (cp. Skt. kaścid, kiñcit Aś kiṁchi, kichi) as

opposed to Nep. kachu H kuch Braj kachū P kuch Lah kujjh (*vide* ND p. 67).

Or. sindhi 'hole made by thieves' Ass sindhi beside sā̃dhi 'joint' B sĩdh but OB sāndhi Bh senhi Aw sẽdhi presuppose *sindhi/sendhi=Skt sandhi pk saṁdhi as opposed to P. sandh, sanh Guj Mar. sā̃dh Lah sannh Guj sandhi. Of course, Mai sonhi and Nep. sẽdh, sen seem to be peculiar.

Or. ākhu 'sugar cane' B ākh Ass kũhiyār as opposed to H. īkh, ūkh P. īkh Mai Bh. ūkhi (lw ?) etc. *vide* ND p 44 ; CDIA p. 70.

(d) Few vocables showing regional differences (Eastern or Outer Aryan ?) :

Or. ṭaṅkā 'a rupee' B. ṭākā Ass ṭakā etc. but elsewhere rupiyā cp. H. rūpaiyā<Skt. raupyaka *vide* ND p 540.

Or. jaḷa 'water' B jal but elsewhere pānī (ND p 375).

Or. śārguṇā 'a vulture' B śakun Ass śaguṇ (Skt. śakuna) but elsewhere derivatives of Skt gṛdhra cp. H. M. G. gīdh P. giddh (ND p. 142)

Or. gacha B gāch Bi gāch 'beanstalk' (ND p. 140, *See* under gāch) cp. also H. gāch, peṛ Sgh gasa but Mag rukh Guj. Mar. H. rūkh P. L. rukkh Sgh ruk, rik<Vedic rukṣa (ND p. 539 *See* under rukh).

Also is to be mentioned Skt. ādarśa in pan-Indian use as opposed to the eastern (or Outer Aryan) frequency and specialization of Skt darpaṇa : Or. dāpaṇa Ass dāpon Mid B. eMai dāpaṇa (also in S) [CDIA pp 52, 354] ; Skt. agni/nidāgha & dyuti : Or niā̃, Or. dial. B Ass jui (also in S. L. P. D) [CDIA pp. 3, 411, 377] ; Skt. ṛkṣa/bhallūka : Or Mai Bh. OAw bhālu B Ass bhāluk [CDIA pp 117, 536], Skt yūkā/utkuṇa : Or. ukuṇi B ukun Ass okaṇī (also in S) [CDIA pp. 608, 79] ; Skt. puccha/lañja : Or lāñja B Ass lej, nej (also in P) [CDIA pp. 467, 632]. The specialization of meaning of Skt. *ghūrma=ghūrṇa>ghum 'to wander' seems to be non-eastern as opposed to 'to doze' in B. Ass. Or [CDIA p 242].

Dr. M. Shahidullah also noted these regional variations and cited few examples representing the eastern and the central regions (The IA parent speech : IL, Turner Jubilee Vol II). The examples are (bracketed portions are mine) :

(1) B. māthā 'head'<mastaka ; H. sar, sir<śiraḥ [cp. Or. mathā cf. CDIA pp. 511, 721].

(2) B cokh 'eyes'<cakṣuḥ ; H. ā̃kh<akṣi [Ass caku OAw cakhu etc. cf. CDIA pp. 247, 2].

(3) B. cul 'hair'<cūḍā ; H bāl<bāra [Or. cuḷa Bi cūr, cūl Bhoj curiyā Mai. cūṛ Ass culi cf CDIA p. 266].

(4) B phel 'to throw'<pk pella<*prerra<prera ; H phek<*keph<*kṣipya<kṣip [Or. pelibā 'to push' etc. cf. CDIA p. 504]

D. OIA PHONEMES AND THE EASTERN LANGUAGES

THE CONSONANTS

From the articulatory point of view Oṛiyā plosives show a phonetic range in points of articulation which before and after [i] is more or less fronted and before and after the back vowels, slightly back. Moreover, initially and after short vowels the plosives have a fortis articulation. Otherwise, the sets of gutturals, cerebrals, dentals and the labials (but not the palatals) appear to preserve the traditional system of pronunciation in the ways discussed below.

The OIA *velar* sounds have generally remained unchanged in Oṛiyā like the other NIA languages throughout the greater part of India—only in some areas, e. g. in Gujrātī of the Surat area they have become palatal stops and spirants (Turner: Gujrātī Phonology, JRAS, 1921 ff 41).

The *palatal* sounds with their pure palatal *stop* articulation have acquired now in modern India, the nature of definite *affricates*, the history of which goes back to the beginning of the Christian era, or a little earlier even by the time the Greeks came in contact with India (Wackernagel: Altindische Grammatik, Band I ff 119; Turner: Gujrati phonology, JRAS, 1921 ff 42; ODBL ff 132, 255; Chatterji: "The pronunciation of Sanskrit" in 'Indian Linguistics' Vol 21, 1960, p 72).

In Oṛiyā the OIA palatals have become alveolo-palalal affricates; while in Southern Oṛiyā, East Bengal dialects, Nepālī, Rājasthānī etc, they are dental affricates. In the standard colloquy of West Bengal as well as in Bhojpurī, they have become palatal affricates (but *see* p. 228). Maithilī and Magahī show the affricates of alveolo-palatal nature. In Awadhī, the affricates are really the palatal affricates, though the affrication is much less than the real palato-alveolars. In Assamese the affricates have finally become fricatives, s, z. Of the non-eastern languages, Marāṭhī in the south has developed a twofold affricate series—the dental affricates and the palatal affricates with phonemic contrast (*see* also Grierson: JRAS 1913, pp 391ff; ODBL ff 132, 255-258). Singhalese too, has changed -c- and -j- to -s- and -d- respectively.

OIA *retroflex* sounds are at present pronounced at a more forward position on the palate in Oṛiyā and other modern Aryan languages except the Dravidian speeches, Rājasthānī and Pañjābī. Only in Assamese they have acquired the alveolar pronunciation attributed to Tibeto-Burman influence (Grierson: Indian Antiquary: Supplement, 1933 p. 150). This is also the case with the languages of some Himalayan tracts and in parts of Gujrat (among most Parsis). Sanskrit intervocalic -ḍ, ḍh- have normally become in modern India, the flapped consonants -ṛ,

ṛh- ; but the habit is fairly old and perhaps goes back to the centuries round about Christ. In Assamese the symbols -ṛ, ṛh- are pronounced as -r, rh-.

OIA *dentals* developed from the earlier alveolar stops, are at present pronounced as dental or dento-alveolar sounds. No change seems to be noticed in the articulation of the OIA *labials* in Oṛiyā as well as in other NIA languages.

So far as the OIA non-plosives are concerned, Oṛiyā shows the following features :

(i) Oṛiyā stands as a conservative language in keeping the retroflex nasal -ṇ- in contradistinction to the other eastern languages (*see* pp. 184-186) as well as in developing the new aspirated nasals -nh, mh- like Maithilī, Magahī, Bhojpurī and Awadhī (*see* pp. 185, 189-90, 191) ; but the latter are non-distinctive sounds in Oṛiyā. Modern Bengali and Assamese lack these aspirated nasals.

(ii) Regarding the *alveolar rolled* and *laterals* -r, l-, Oṛiyā like the other NIA languages have more or less preserved the sounds. The newly developed aspirated -rh, lh- are distinctive in Bhojpurī, Magahī, Maithilī and Awadhī as opposed to Oṛiyā. In Assamese -rh- is distinctive and developed secondarily from the written symbol -ṛh-. Bengali lacks the aspirated forms.

(iii) The *flapped relroflox* -ḷ- developed from OIA r, l, ḍ is a very characteristic sound in Oṛiyā in contradistinction to the other eastern languages (*see* pp. 197-98).

(iv) Oṛiyā has developed *alveolo-palatal fricative* out of OIA sibilants, ś, ṣ, s, whereas the Bihārī languages and Awadhī (like Braja Bhākhā) the alveolar -s-. Maithilī in addition, shows alveolo-palatal fricatives š [ʃ] like the western languages *viz.* [s, š] in Hindī, Sindhī, Gujrātī, Pañjābī, Marāṭhī etc. In the Standard Bengali dialect of West Bengal, the fricative is purely palatal. Assamese is characterized by the secondary development of the velar and glottal fricatives -x/h- in *tbh.* words and -x/kh- in *ts.* words in initial/non-initial positions (cf. FA ff 105, 442-445). The pronunciation of OIA -ṣ- as -kh- is found sporadically in all the eastern languages (*see* pp. xi, 150).

(v) Of the *semi-vowels*, y, v, -y- in initial position has become the affricate -j- of various shades in parts of Northern India—in Bihar and U.P. particularly, as well as in Bengal, Orissa and Assam. Of course in Assamese the written symbol stands for voiced alveolar fricative -z-. In Bengal and Assam, intervocal -y- [j], which is really a consonantal [i] as in Oṛiyā and other

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Bihārī languages, becomes a consonantal [e] (*see* pp. 192-93, 236). The OIA bi-labial semi-vowel -v- has become the labial stop [b] initially and also frequently, medially and finally in the eastern regions, viz. in Western and Eastern U. P. and Bihar as well as in Bengal, Assam and Orissa; on the other hand, OIA [w] developed into to a bi-labial fricative [β] in Pañjābī, Hindī, Sindhī, Gujrātī, Marāṭhī etc. In Marāṭhī there is a parallel development of a labio-dental fricative [v] written व़.

For the pronunciation of -y- and -v- in consonant-cluster *see* pp. 145-156.

(vi) OIA *voiced glottal fricative* -h- remains intact in Oṛiyā as in other NIA languages, Besides the unvoiced variety of -h- in the aspirating element in the voiceless plosives and the affricates, it is seen to occur finally in the Bihārī languages and Awadhī.

For the pronunciation of OIA consonant-cluster in the eastern languages, *see* pp. 143-146.

THE VOWELS

Historically the OIA vowels have undergone major changes than the consonants. The following observations may be made about the modern pronunciation of OIA vowels, viz. [a, a:, i, i:, u, u:, e:, o:], the diphthongs [ai, au] and the vocalic liquids [ṛ, ḷ].

The earlier OIA a [ɑ, a] of open variety and the closed [ʌ] later in the time of Pāṇini evidently became the one which as [ʌ] established itself as the commonest pronunciation in the greater parts of present-day India ; while in the Maratha tracts, OIA [a] developed into an unrounded [o] i.e. [ɤ]. In the eastern parts of India the various shades of the pronunciation of OIA [a] may be shown thus :

(a) [ʌ] as in English *sun* [sʌn] in the Bihārī languages—Bhojpurī, Maithilī, Magahī ; and Awadhī of eastern U. P.

(b) [ɔ] and its long variety [ɔ:] as in English *law, ball* [lɔ:, bɔ:l] found in Assam, Bengal, Orissa and Bihar.

(c) a frank [o] sometimes developing from the rounded vowel [ɔ] under certain phonological conditions in Bengal and Assam.

(d) The 'neutral' vowel as in English *ago* [ə'gou] developed in the unaccented and weak pronunciation, especially in the Bihārī languages and also in Awadhī.

OIA [a:, ɑ:] as in English *half* [h ɑ : f] is now articulated without much change ; but it is pronounced at present in a more central position.

OIA [i, i :] and [u, u :] seem to be pronounced at present in a rather lax manner. The quantity or length of vowels is not generally significant in Bengali, Assamese, Oṛiyā, Awadhī and the Biharī languages (*see infra*).

OIA [e:, o:], the pure long vowels as in Scottish English *gate* [g e: t] *bone* [b o: n] etc. respectively have generally lost their length in the eastern languages. Sometimes, OIA [e:] is pronounced dialectally as [æ, ɛ, e] under certain phonological conditions.

Regarding the pronunciation of OIA diphthongs [ai, au], the following observations of Dr. Chatterji is to be noted : These two diphthongs, ऐ औ /ai, au/according to the present pan-Indian Sanskrit Standard, are to be pronounced as /ʌi, ʌu/. But in most areas outside of South India and Maratha country, these vowels have more or less been modified. In the Hindī area, the sounds have become either /ɛ, æ/ and /ɔ/ respectively, or, /æĕ/ and /ɔŏ/ ; in Bengali and Assamese they have become /oi/ and /ou/ ; in Oṛiyā /ɔi/ and /ɔu/ (*vide* 'The Pronunciation of Sanskrit', Indian Linguistics vol. 21 ; but for the particular pronunciation of OIA [e:] as [ɑɛ] *see* ODBH ff 41 ; as [ɔi] in Oṛiyā *see* pp 72, 107.

The pronunciation of OIA ṛ as -ru- in Oṛiyā developed possibly during 15th century owing to Telugu influence, supplanting the earlier -ri- common to all other eastern languages. For the pronunciation of OIA ṛ] and *anusvāra* in the eastern languages, *see* pp. 32-33 and pp. 94-98 respectively.

OIA ḷ is one of the rarest sound in Sanskrit, being found only in one or two words. At present in Hindī area, the common substitute is [lri] ; but for Bengal and Assam it is [li] ; whereas in Orissa, Mahārāṣṭra and in south India, it is [lu].

Regarding OIA *visarga*, it should be noted that only in Bengal, Assam and Orissa, the unvoiced h-value is retained in the pronunciation : [the voiced -h- pronunciation of *visarga* has also been noted in early Oṛiyā, *see* p 203 (xii)]. Throughout the greater part of India, *visarga* has been altered to fully voiced [h] followed by a repetition of the preceding vowel, e.g. Skt. devaḥ=[de:vəhə].

Tabular Representation of the Phonemes of the Eastern Languages

VOWELS

Common phonemes		Special phonemes
i, e, ɑ:, ɔ:, o, u, ʌ, ə	+	æ, ɒ in Maithilī
	+	ɛ, a. (?) in Bhojpurī
	+	æ in Magahī
i, e, ɑ:, o, u, ʌ		in Awadhī
i, e, ɑ:, ɔ, o, u	+	æ, (dial. ɛ, a) in Bengali
	+	ɛ, ɒ in Assamase
	+	(dial. ɛ) in Oṛiyā.

So far as the eastern languages are concerned, the nature and the behaviour of the vowels should be noted as shown below :

(i) Length of vowels generally is not significant. It depends on rhythm and the length of the word. But the case is completely different with Hindī as shown by Prof. Ghatage : "...length is phonemic (in Hindī) for the three basic vowels, /i/, /u/ and /a/ but not so in case of /e/ and /o/. /ɛ :/ and /ɔ :/ always occur as long ones, while the length of /e/ and /o/ is determined by their place in the word" (Historical Linguistics and Indo-Aryan languages, p 140). It should also be noted, as Prof. Ghatage has observed, that vowel length is significant in the central group of NIA languages as can be seen from the phonologies of Hindī, Pañjābī and partly Sindhī. But when we go further to the east or to south, we find that the length in these vowels slowly goes on losing its phonemic status and it has no significance either in Assamese or Bengali to the extreme east or in Gujrātī or Marāṭhī further to the south. The intermediate languages like say Bhojpurī or Oṛiyā and a few others appear to show an intermediate stage, where the length is partly given up but partly kept, though its phonemic importance is certainly on the decrease (*ibid*, p 147). [For the limited contrast of vowel-length in Oṛiyā as noticed by Prof. Ghatage, *see* also HL p. 137]. Anyway the limited contrast of length seems to operate in Bihārī speeches with respect to [ɔ] and [ɑ] ; for instance, Mai. ɑ: / ɑ : kāṭaba 'to cut'/kăṭaba 'to be cut'. Similar is the case with Mag. ɔ / ɔ: ; for example, Mag. dekhɔ / dekhɔ: (imp. 2p. sg. non-honorific/mild use) ; or, Mai-Mag. mārɔ 'beating' / mārɔ: (you) kill. [*see also* Mai. Gr. pp. 3, 287 ; LSI vol. V, ii p. 35 ; MVK p. 55]. But in case of Bengali, Assamese, and Oṛiyā, the contrast in this respect is lacking. And therefore, the length of long-drawn -ɔ- i. e. [ɔ̇ :] as in Eng. *all* and -ɑ- i. e [ɑ :] as in Eng. *father* is of insignificant value.

(ii) In the eastern languages, nasalization is phonemic and all vowels generally occur with the nasal phoneme to produce contrast.

(iii) Non-phonemic variety of short vowels in the unaccented position medially and finally are to be found in the Bihārī languages viz. ⁱ, ᵘ, ᵒ, ᵉ, in Maithilī, ĭ, ŭ in Magahī and Bhojpurī. Further, the development of whispered vowels out of i, u, e [i̥, u̥, e̥] as the non-syllabic final sounds seems to be non-contrastive in Awadhī.

(iv) While Hindī and the western languages have always kept the length of the vowels, [ɛ, ɔ], the Bihārī languages and Awadhī show the tendency of diphthongization instead. Bengali, Assamese and Oṛiyā have altogether lost the length, or, lack in the tendency

of diphthongization. Thus "the /ɛ :/ and /ɔ:/, of the standard colloquial (Hindī) tend to become diphthongs like [ɛe] and [ɔo] as we proceed more to the eastern side, and finally they become regular diphthongs of the type [ᵊĕ] and [ᵊŏ] in the Bihārī area" (Ghatage : HL p. 141, Saksena : E Aw ff 128).

(v) Short variety of ā viz. ǎ, as stated above, is not generally found in Bengali, Assamese and Oṛiyā. [ʌ] of pan-Indian importance is absent in B. Ass. and Oṛiyā ; whereas [ɔ] of the eastern area is absent in Awadhī. The Bihārī speeches show contrast of [ʌ/ɑ], for instance Bih. hʌr 'daily'/hɑ:r 'defeat'. In case of [ᵊ], it seems to be non-contrastive in Oṛiyā as opposed to its Bihārī sisters (cp. Bih. ᵊ/ɑ: in u:tᵊr 'north'/utɑ:r 'to put off' ; bihᵊn 'seed'/bihɑ:n 'morning.' The phoneme [æ] seems to be an eastern development as seen from its singular existence in Maithilī, Magahī, standard Bengali and western Assamese. For the contrast of Mai-B e/æ, compare B dekho (2p. fut) /dækho (2p. imp.) ; Mai bera 'day' / bæra 'the fruit of the jujube tree' ; je 'who'/jæ 'victory' etc. [ɛ] as a phoneme is also to be found only in Assamese, dialectal Bengali and northern Oṛiyā. [ɛ] in Bhojpurī seems to be an allophonic variety of [e] (compare ghare/gharɛ). The other allophonic variations are : Bhoj [ʌ/ɔ] dʌs/dɔs 'ten' ; Bhoj [aɛ /ʌɛ], cp. kaɛlɑs/kʌɛlɑs ; Mai [ɒ/ɔ :] cp. kɒra/kɔ:ra (<Skt. kavala) or, Mai [o:/ɔ: , ɒ] cp. ɔ:ra/ōra (<skt. avara). The rounded variety of ɑ i. e. [ɒ] as a phoneme is possibly a northern development and is available in Assamese and Maithilī, for instance, cp. Mai. ɒ/ʌ/ɑ : Mai dhɒna (dhanya)/dhʌna (dhana)/dhɑna (dhānya) ; also Mai ɒ/o or ɒ/ɔ/ɑ : jɒra (jvara)/jora 'strength' ; pɒra (upari)/pɔra 'others'/pɑra 'other side' ; Assamese ɑ/ɒ/ɔ/o : Ass. bɑl 'pubic hair'/bɒl 'strength'/bɔl 'let's go'/bol 'speech, colour' etc.

(vi) A comparative study of the Stress System of the eastern languages has been dealt with in the proper place (*see* ch, XIV).

CONSONANTS

Common phonemes	Special phonemes and modifications
k(h). g(h), ṭ(h), ḍ(h), t(h), d(h), p(h), b(h)	(i) but Ass. ṭ(h), ḍ(h)= t (h), d(h) (ii) Stability of aspirates, especially in final position in Biharī and Aw.
c̊(h), j̊(h)	(i) alveolar fricatives s, z in Ass (ii) varieties of affricates in the eastern languages except Ass.

m, n, ṅ (non-initial) { + mh, nh, ṅh(non-initial) in Mai Bhoj Magahī
+ ṇ in Oṛiyā (in non-initial position)

-l- + lh (non-initial) in Mai Bhoj Mag Aw

-r- + rh (non-initial) in Mai Bhoj Mag Aw and Ass

-ṛ-(non-initial) { but Ass ṛ, ṛh=r, rh
+ṛh in Mai Bhoj Mag Aw Oṛiyā

-s- but s=B ś Ass h/x Or Mai sy [š]

-h-

-y, w- { [ĕ, ŏ] in Bengali and Assamese
[ĭ, ŭ] in Bihārī, Awadhī, Oṛiyā

For the detailed treatment *see*, chapter XV of this book, also Chatterji : The Pronunciation of Sanskrit, IL vol. 21, 1960; and A Brief Sketch of Bengali Phonetics ; Ghatage : HL, pp, 133-48 ; Jha : Mai. Phonetics IL vol. 8 ; Goswami : An Introduction to Assamese Phonology ; Ferguson and Chowdhury : The Phonemes of Bengali : Language vol. 36. Sampatti Aryani : MVK ; S. Prasad : Juncture and Aitch in Magahī, IL, Turner Jubilee vol II ; also chapters on Phonetics in FA, ODBL, ODBH, FM, EAw.

E. LINGUISTIC BOUNDARIES OF ORIYA

Oṛiyā is bounded on the north by the Bengali language, and, where the political boundary runs along the south of Ranchi Plateau, by the form of Bihārī spoken in that district. On the west it is bounded by Chattisgaṛhī and on the south by Telugu (LSI Vol. V. pt. 2). Needless to say, it merges into its neighbouring languages on its boundaries, and in those areas it is difficult to say whether the language spoken is or is not an Oṛiyā dialect influenced by them. For insance, Bhatrī dialect spoken in the north-east of the former Feudatory State of Bastar, is advocated by Grierson to be the only true dialect of Oṛiyā (Speakers of Bhatrī—85, 048 acc. to 1961 census report).

The other speech-communities of Orissa are mainly of Dravidian or Munda stock. According to the recent census report of India (1961), the main Dravidian speaches in Orissa are : Kui (or Kandhī, Khond), Gondi, Kurukh/Oraon, Parji, Koya, Pengu etc. Of these the speakers of Kandhī are most numerous (more than 5 lakhs). Besides, there are Kisan—an Austro-Dravidian tribal language (speakers, 49, 316) and many unspecified Munda languages. viz. Parenga, Kol, Munda (83, 182). The other Austric speeches are : Bhumij, Bhuyan, Juang, Gadaba, Ho, Kol, Koda/Kora, Khaṛia, Munda, Mundari, Savara, Birjia/Binjlia and Santali. (For the distribution of the tribal people *see* IL Vol. 17, June 1957 pp. 42-43).

Tamil and Telugu of the Dravidian stock are spoken mostly on the Southern border of the State.

F. THE DIALECTS OF ORIYA

Orissa is a vast tract with an area of 60, 136 square miles and a population of 1,46,45946 in the census of 1951; but at present, it has grown to 175,66 lakhs (cf. OHRJ vol. X 1962 No 4 p. 11). But according to the census report of 1961, the total population of Oṛiyā speakers amounts to 1,57,19,398 but in Orissa proper the Oṛiyā speakers are 1,44,43,598 [Census of India, 1961 vol I part II-c (ii)].

The principal language of the State is Oṛiyā, a sister language of the other Māgadhan languages, viz. Bengali, Assamese and Bihārī, i. e. Bhojpurī, Maithilī and Magahī. Oṛiyā is remarkably free from dialectic variations as observed by Grierson. The State comprises thirteen districts. The broad divisions of the major dialects of Oṛiyā may be taken as the following :

(a) The dialects of Ganjam and Koraput in the south.
(b) The dialects of Sambalpur in the west.
(c) The dialects of Balasore in the north.
(d) And the standard dialects of the districts, Cuttack and Puri etc.

(a) SOUTHERN ORIYA DIALECT

The Southern Oṛiyā or Ganjāmī Oṛiyā dialect is spoken in the districts of Ganjam and Koraput. In some areas i.e. Vizagapattam districts and some districts of Andhra State, a corrupt mixture of Oṛiyā and Telugu is spoken. The chief phonetic peculiarities of the above dialect are observed below :

(i) The final vowel is pronounced like standard Oṛiyā, viz. kāma, ghara (karma, gṛha) etc.

(ii) Sometimes, the ending -u is added to foreign loans, under the influence of the Telugu language, viz. Eng. hearing>hirungu, Eng. first>firstu etc.

(iii) Use of close vowels for standard Oṛiyā half-close vowels, especially in initial syllable, viz. śuibā (for st. Or. śoibā), guru (for st. Or. goru), ithara (for st. Or. ethara) etc.

(iv) The vowel -ā- of Standard Oṛiyā is pronounced more as a back vowel in Southern Oṛiyā under Telugu influence. "In an Oṛiyā inscription written in southern Oriya (Inscription of Anantavarmadeva, 1051 A.D.) we find this tendency as early as 11th century A. D. We have the text Gaur, jani, daya which equates with standard Oṛiyā gāṃ 'vlllage', jāṇi 'be it known', dayā 'kindness'' [*vide* OHRJ vol. X. no 4 p. 12.].

(v) The affricates c, ch, j, jh are pronounced as ts, tsh, dz, dzh except when they are followed by front vowels. This happens under the influence of the Telugu language where we have a set of affricate consonants beside the palatal consonants.

(vi) The cerebral sounds ḍ, ḍh are pronounced with tense articulation so that they are not really flap sounds, viz. paḍḍibā or parḍibā 'to fall' for Standard Oṛiyā paṛibā etc.

(Observations from "Southern Oriya" by K. B. Tripathi in OHRJ Vol. X 1962 No. 4. and also LSI Vol. V pt. 2. and "The languages and dialects spoken in Orissa" by G. B. Dhall p. 39 in IL : Taraporewala Memorial Volume, vol. 17 1955-56 June).

(b) WESTERN ORIYA DIALECT

The Western Oṛiyā or Sambalpurī Oṛiyā dialect is spoken in the five districts of Orissa, viz. Sambalpur, Sundargarh, Balangir, Boudh-Kondhmal and Kalahandi. In some neighbouring districts outside the State of Orissa, Westrn Oṛiyā is spoken in parts of the districts of Raipur in Madhya Pradesh and in the former Feudatory States of Sarangarh and Raigarh. The chief phonetic peculiarities of the above dialect are noted below :

(i) Loss of final vowel unlike Standard Oṛiyā : viz. kām 'work', ghar 'a house' for Standard Oṛiyā kāma, ghara etc.

(ii) The slurring of the final vowel is possibly due to initial stress in dissyllabic words and penultimate stress in polysyllabic words which causes an anticipated lengthening of the stressed vowels.

(iii) While Standard Oṛiyā has a single value of -a- [ɔ], a half-open vowel as in English *hot*, the Western dialect has two values for the same, viz. (a) that value of Standard Oṛiyā and (b) that which is still further back and and an open sound as in the word -kaṇ- 'what' where -a- is between Standard Oṛiyā -a- and -ā-.

(iv) Western Oṛiyā, unlike st. Oṛiyā, uses a shorter -i-, viz. karibi or karimi for Standard Oṛiyā karibi 'I shall do'.

(v) In Western Oṛiyā, -e- approximates to Cardinal vowel no. 3 i.e. half-open [ɛ].

(vi) It employs closed vowels for half-closed vowels, viz. -i- 'this' for Standard Oṛiyā -e- ; iṭhāne 'here' for Standard Or. eṭhāre ; udā 'wet' for st. Or. odā ; śuibā 'to sleep' for st. Or. śoibā etc.

(vii) Epenthesis is particularly noticeable in Western Oṛiyā (which was possibly first referred to by Late Prof. B. C. Majumdar cf. HBL p. 84) viz. kāil for st. Or. kāli 'to-morrow, yesterday', thail

for st. Or. thaḷi 'a bag'. Sometimes, the epenthetic vowel -i- is further changed into -e-, e.g. rāet for Standard. Or. rāti 'night' etc.

(viii) The retroflex nasal -ṇ- is used in limited number of words which is to be converted to dental -n-. (*See also* Majumdar : HBL p. 91).

(ix) The retroflex flapped consonant -ḷ- which is peculiarly Oṛiyā in nature is absent in Western dialect.

(x) Western Oṛiyā sometimes uses -r- in place of -ṛ- of st. Or. viz. dauri 'a rope' for st. Or. dauṛi etc.

(xi) The consonantal cluster -ṇḍ- is pronounced in Standard Oṛiyā as dental -n- plus -ḍ- ; but in Western dialect it yeilds to -ṇ- or -ṛ- with nasalization of the preceding vowel, viz. tũṛ or tuṇ for st. Or. tunḍa Skt. tuṇḍa ; hā̃ṛi for standard Or hānḍi Skt. bhāṇḍikā etc.

(Observations from EOLS : Tripathi pp. 213-217 ; also LSI Vol. V pt. 2 and HBL : Majumder)

(c) NORTHERN ORIYA DIALECT

The Northern dialect of Oṛiyā is spoken in North Balasore District of Orissa and in some parts of Mayurbhanja and Midnapore. It is greatly influenced by the Bengali language no doubt, but the influences are remarkable in the border dialects of Contai Sub-division of Midnapore district of Bengal. "Illiterate people in these parts speak a language in which a sentence may begin in Oriya and end in Bengali or *vice versa* or a sentence may thoroughly be saturated with corrupt Bengali grammatical forms" (IL Vol. 17 June 1957 p. 41 ; also LSI Vol. V. pt. 2). In this tract popular books in Oṛiyā are written or published even in Bengali. For instance, *Ṭīkā-Bhāgavata* written by the renowned Oṛiyā poet, Jagannātha Dāsa (published by Kāthi Nihar Press, B. S. 1326 in Bengali script) displays many Bengali features, such as the Bengali numerals, teiś '23', cabbiś '24', chāppānna '56', chiyānabbai '96', uniś '19' for Oṛiyā teiśi, cabiśa, chapana, chayānabe, uṇeiśa respectively. It is superfluous to repeat all the peculiarities of this 'Mongrel Jargon' as termed by Grierson (LSI Vol. V pt. 2 p 420).

The chief peculiarities of Northern Dialect of Oṛiyā spoken in the Balasore district of Orissa noted by me from personal interviews and tape-recorded specimens of the speech communities, are shown below :

4

(i) Loss of aspiration in medial or final syllables, viz. kailā, kaelā for kahilā 'said', houci for houchi, 'has become', kāĩki for kāhĩki 'why, for what', paũcibā for pahuñchibā 'to reach', āsici for āsichi 'I have come' etc.

(ii) The change of -l- to -n- in most of the cases, viz. nucibā for lucibā 'to hide', nāgi gale for lāgi gale, āmbhe āsinu for āsilu 'we came'; also the substantive verbs thine, thinu for thile, thilu as in āsithilu, āsithile etc. But what is worth noticing is that gali, gale 'I went' etc. are never gani, gane etc.

(iii) Sporadic loss of final vowels, viz. anek 'much', darkār 'necessary', hajār 'one thousand', bahut 'much', kaṇ 'what' etc.
Sometimes the final vowels are elided when they are compounded or affixed, viz. śiāḷa (śṛgāla) but śiālṭāku etc.

(iv) Besides the half-close vowel [e], a half-open variety [ɛ] is met with which is a lowering of -e- before -ā-. But, this change never occurs in the final syllable, viz. dɛṛha, hɛlā, thɛlā for deṛha, helā, thilā/thelā but compare hele.

(v) The employment of -m- for -b- in 1st person singular and plural of present tense only, viz. mu ānimi, āme karimu, jimi, jimu etc.

(vi) Contraction of vowels in medial and final syllables, viz. guṭe for goṭie, karici for kariachi, karuci for karuachi etc.

(vii) Sometimes -ḷ- which is always intervocalic becomes -l- when conjoined with a consonant, viz. Or. śiāḷa (śṛgāla) but śiālṭāku etc.

(viii) Sporadic raising of the vowels also are met with, viz. pukhuri for pokhuri 'a lake', ghini āsile for gheni āsile 'took', khujibā for khojibā 'to search', śuibā for śoibā 'to lie', kimiti for kemiti 'how', ḍuma for ḍoma, ḍama 'a caste' etc.

(ix) The alveolar variety of fricative is frequent, viz āsibā [asiba] 'to come' but śuibā [ʃuiba] 'to lie' etc.

(x) Sometimes pure nasalization of the preceding vowel like Bengali in the combination of class nasal+plosive, viz. rāndhibā 'to cook' but rā̃dhā, compare also pindhibā 'to wear'; pā̃c for pāñca 'five' etc.

(xi) The existence of long -a- [ɔ:] and -ā- [α:] is available, viz. thāānta (thα:nta) etc.

(xii) Pronominal bases of first and second persons:
Nom. mu (sg.) āme (pl.) oblique āma-, ma (sg.) āme (pl.)
Nom. tu (sg.) tuma (pl) oblique tuma, tu (sg.) tuma (pl.)

(xiii) Some vocables which deviate from Standard Oṛiyā resembles Bengali vocables, viz. anek for st. Or. bahuta, sāmne for st. Or. chāmu, kahibā for st. Or. pacāribā, mātāl for matuāḷa etc.

G. THE ORTHOGRAPHY OF ORIYA

The Oṛiyā alphabet is originated like its other sister-alphabets from Brāhmī Script of ancient India (3rd c. B. C. to 3rd c. A.D.) which developed through the intermediate stages of the Gupta script (3rd c. A.D. to 6th c. A.D.) and the Acute-angled script including the nail-headed or wedge-headed types, known also as Kuṭila lipi (6th c. A.D. to 11th c. A.D.). The early Oṛiyā script is traceable directly from Proto-Bengali Script (termed by Bühler ; 11th c. A.D. to 14th c. A.D.) which was prevalent in eastern parts of Northern India and was the immediate source of Bengali-Assamese, Tirahutiyā (in Mithilā) alphabets.

Though all the stages of the systems are available from different tracts of Orissa, the Early Oṛiyā Script developed not later than 14th century and evolved throughout two centuries (14th c. A.D. to 16th c. A.D). The earliest Oṛiyā script is found in the Stone inscription of Pottesvara temple from the district of Ganjam (A. D. 1376), though the Sanskrit Copperplates of Kenduāpāṭnā inscription of the king Nṛsiṃhadeva II (A. D. 1296) indicated the birth of early Oṛiyā script at least in the last decade of the thirteenth century (EOLS p. 33). R. D. Banerjee, also in his 'The Origin of the Bengali Script' observed : "The modern cursive Oṛiyā script was developed out of the Bengali after the 14th century A. D. like the modern Assemese".

The chief feature which distinguished the early Oṛiyā from the proto-Bengali is its cursive forms and top-loops. The horizontal top strokes of proto-Bengali were represented by curves in the early Oṛiyā, which was due primarily to the writing materials used in Orissa, viz. an iron stylus and palm-leaves of longitudinal fibre ; whereas the reed pen and ink and paper have kept up the angular shapes in Bengali and Maithilī (ODBL p. 225, Tripathi : EOLS p. 33). In early Oṛiyā scripts, there are some traces of Nāgarī (Western and Northern alphabet) and later Kaliṅga script (Southern alphabet, 7th-13th c. A. D.) ; but, in general, it seems to be developed directly from proto-Bengali or Eastern alphabet or Gauḍī (termed after D. C. Sircar).

The modern Oṛiyā script dates back to 16th century A. D. and it has two types of employment, the normal type used in printed matters and the Karaṇī type which is generally used by the professional scribes ; (for the treatment of two different types of writings, *see* JBORS Vol. x. 1924 p. 168 : 'The Oriya alphabet' by Sir H. Mcpherson). Some of the letters however, are alike in the normal and Karaṇī types.

Some important peculiarities of Early script are supposed to be helpful for linguistic purposes and may be summarized thus :

(i) Absolute confusion for the neglected use of length of i, ī and u, and ū, suggests the loss of distinction of these in Oṛiyā.

(ii) The frequent erroneous employment of the signs for the sibilants.

(iii) The emploment of -ṛ- to indicate the values -ri- as well as -ru-, of which -ri- was prior to the latter.

(iv) Early Oṛiyā maintained the orthographic distinction of dental -l- and retroflex -ḷ- by adding a tail-like mark under the former from thirteenth century onward (cf. Bhubaneśwara Bi-lingual stone inscr. of Vīra Narasiṃha Deva c. 1250 A.D.).

(v) Loss of distinction of -b- and -v- in the inscriptions (except the Pillar inscription of Tiruchuttu Mandapa Kurmeśvara temple of Srikurmam, in Nāgarī script, 1403 A. D). Of course, the confusion already started in 7th-8th c. A. D. in the eastern Alphabet (cf. ODBL p. 226).

vi) Employment of two characters, one for -y- pronounced as -j- and another for -y- (i. e. ẏ and y). In order to distinguish the symbol of -ya- from that of its derivative pronounced like -ja-, a tail-like stroke is attached to the bottom of the letter or to the end of its vertical, which appeared in the 15th century (Tripathi : EOLS p. 68).

vii) Velar nasal is only found in combination with other velars; and -ñ- does not occur outside ligatures.

For the orthography of the insertion of y/w as glide, *see* pp. 40-50.

H. OLD ORIYA AND SOME OF ITS PHONOLOGICAL ASPECTS

Before finding out the phonological peculiarities of Old Oṛiyā, a proper assessment of the materials of Old Oṛiyā should be taken into consideration. The materials for studying Old Oṛiyā may be collected from different sources. The chief sources taken as standard for this thesis are as follows :

a) Old Oṛiyā Inscriptions.

b) Old Oṛiyā literature aud other records.

Besides the specimens mentioned above, the other forms of literature viz. the folk songs, ballads, verses of *ḍāka* or *ḍhaga-ḍhamālī* of specifically Oṛiyā in nature were also in vouge in the earlier history of Oṛiyā as of other Indian Languages. In the present study they have been excluded deliberately as they are corrupted in the present forms of popular currency having no more old traits of linguistic habits.

Regarding the inscriptional records, inscribed either in stones or in copper plates, the history of the language is thoroughly represented in concatenation of systematic development even upto the eighteenth century. There are more than 60 inscriptions covering 10th to 16th century, a remarkable quantity of records not to be found elsewhere in the eastern parts of India, with the stamp of historical events, social conditions, religious customs, ritual behaviours and the royal upsurges in succession

of the Imperial Ganga Dynasty (1077-1435 A. D.), the Solar Dynasty of the Gajapati kings (1435-1540 A.D.) and the Ministerial Dynasty (1540-1568 A.D.) after whom ended the independent Hindu Sovereignty of Orissa.

The materials from the inscriptions are utilized properly in this discourse. These inscriptions are published in SII, JASB, OHRJ etc., though most of them are included in 'The Evolution of Oṛiyā Language and Script' by Dr. K. B. Tripathi. There are about 100 inscriptions from 1568-1803 A.D., not included in Dr. Tripathi's, as it was not within his scope and are published here and there, in different Research Journals. I have taken some of them into account and these are chiefly from OHRJ (*vide* OHRJ Vol. V no. 2, 1956 : Inscriptions in Sanskritic Provincial Languages by D. B. Diskalkar).

The place of the *Caryāpadas* in the history of the eastern languages is yet a matter of further investigation. The scholars of Orissa also have claimed that some of the authors of the *Caryās* and the *Caryās* themselves are to be connected with the Oṛiyā speakers. Paṇḍit Vināyaka Miśra, Prof. Ārta Ballabha Mahānty and others have advocated their views by referring to the similarities in words and grammatical structure of the *Caryās* with Oṛiyā (*vide* V. Miśra : Oṛiyā Bhāṣāra Itihāsa ; and A. B. Mahānty : Prācīna Gadya-Padyādarśa). It is superfluous to quote here all the vocables which show affinity with Oṛiyā as they will be treated later in my investigation into the matter of Comparative Phonology in showing the affinity of Oṛiyā with other eastern languages, old and modern. Moreover, they are nicely collected, though not exhaustively, by Dr. Paṇḍit Nīlakaṇṭha Dāsa ('Oṛiyā Language and Culture' published in OHRJ Vol. VIII part i,April 1959 pp. 32-33).

In spite of the striking similarities of Oṛiyā and the language of the *Caryās*, I have not tried to establish the relation which is not my present scope ; and naturally, I have followed Dr. S. K. Chatterji in taking them as Old Bengali ; but being quite conscious of the fact, which is so evident, that the language of the *Caryās* represents the characteristics of Neo-Māgadhan of which Oṛiyā is a conservative and faithful descendant.

Orissa can boast too of its vast literature with the landmarks of the great authors in whose pens, a rich vein of poetic pulsation of the soul of Orissa is always to be felt. W. W. Hunter has mentioned 107 authors with their works (cf. A History of Orissa Vol. I, pp. 210-220 edited by N. K. Sahu, 1956). Paṇḍit V. Miśra has dealt with the works of about 70 authors in his 'Oṛiyā Sahityera Itihāsa' which supplements that of T. C. Ratha. It is a great task to single out the savants of Oṛiyā literature who open the gateways for a peep into the infinite glory of the liteary

world of Orissa. To mention some of them, Śāralā Dāsa (15th c. A.D.), Baḷarāma Dāsa, Jagannātha Dāsa, Acyutānanda Dāsa (16th c. A.D.), Dīna Kruṣṇa Dāsa, Dwārakā Dāsa, Bhūpati Paṇḍita, Deva Durlabha Dāsa (17th c.) Upendra Bhañja, Bhakta Caraṇa Dāsa, Abhimanyu Sāmanta Siṅhāra (18th c.) and Bhīma Bhoi (19th c.) etc.

I have utilized here most of the standard works of the representative authors, beside the above, of diffenent ages, and have not failed in availing myself of the opportunity of using almost all the texts critically edited by Prācī Samiti, Cuttack.

Mādaḷā Pāñji or the Drum-chronicle and the *Cautiśā* forms of literature are also worth mentioning here. *Mādaḷā Pāñji*, the prose-chronicle of Orissa kings which is preserved in the temple of Jagannātha represents the specimens of Oṛiyā as early as 12th c. A.D. "The Pāñji seems to have begun from the time of Jajāti Keśarī and records accounts of a long list of about 49 Keśarī kings from Jajāti to Śūnya Keśarī, the last king of the time" (A. B. Mahanty). The scholars are of different opinion as to the actual date of the records. Nevertheless, some portions of the records have, no doubt preserved the old features of Oṛiyā language. To quote Dr. M. Mansinha, "In spite of interpolations, inaccuracies and fantasies, these prose records may be taken to have substance enough to prove their antiquity......Their language is generally archaic, but uncouth and inartistic, lacking the ancient flavour" (History of Oṛiyā Literature p. 42).

The conventional patterns of forming verses within the limited lines arranged in the alphabetical order were extant in the medieval literature of India and the Oṛiyā literature is not an exception. Here, the poems full of fervent appeal, find even now many sympathetic hearts of the uninitiated rustics of Orissa. About 60 *Cautiśā* verses have been compiled and edited in five volumes by Prācī Samiti. The earliest verse seems to be the *Kaḷaśā Cautiśā* of Bacchā Dāsa, mentioned in various works suggesting the manner and style of tune to be followed. *Rasakulyā* and *Keśava Koili* of Mārkaṇḍa Dāsa are also universally popular in Orissa. Thanks to the gallant endeavours of Prācī Samiti and Late Prof. A. B. Mahanty, I have taken to account almost all the materials of Old Oṛiyā served by them.

Leaving aside the materials of the *Caryāpadas*, I have found that the language of old Oṛiyā from 11th to 18th century A.D. presents a unique stability in linguistic growth ; and a casual reader of Oṛiyā literature may easily pass over the earlier literary achievements without much trouble. No doubt, it is due to conservatism of the Oṛiyā language. The language represents the older stage of grammatical development ; it possesses a composite character in having a logical grammar ; it lacks the digressive force of disintegration as it is remarkably free from dialectal variations. The peoples of Orissa can boast of their magnificent structure of a

marvellous language like that of the temple architecture "by reason of its being the seat of Indo-Aryan style in the present form without the least vestige of foreign influence."

This stage of the Oṛiyā language may be termed as Old Oṛiyā without any clear subdivision. It stands for the second phase in the development of the language from the age of the *Caryās* to modern Oṛiyā. Apart from the consideration of morphology, the new stage of Oṛiyā is differentiated from the earlier one in different aspects, viz.

(i) Intrusion of English vocables.
(ii) Extinction of many old Oṛiyā words.
(iii) Accent system.
(iv) New phonological developments.

I am not going to give any detailed account of English vocables in Oṛiyā. The matter is nicely treated by D. N. Mahānty in his 'English Loan words in Oriya' published in OHRJ Vol. vii, Oct. 58-Jan. 59, part 3-4. But it is proper to present here a collection of old vocables, now obsolete or archaic in Oṛiyā. For instances, O. Or. mehu (Skt. megha., RBh, UBh, RB) rahu (Skt, ratha-, RM. RBh) pāṇḍhoi 'sandals' (Skt. upānaddha- MBh. Md.) hena 'such' (Skt. *etādṛśana Ap. aihana, UBh, RBR) ghṛmita (for Skt. ghūrṇita, JC etc.) Mayāṇa (Skt. Madana) śayaḷa (Skt. śaila) āreṇi 'chief' (UBh) muhā̃sa 'artraction' (Skt. mohapāśa, RB) gachibā 'to fit' (cf. Skt. gacchati) bighaṃsibā 'to bloom' (cf Skt. vikaśita RM) śroṇehā 'lascivious' (RM) bṛṣāḷa (Skt. viśāla) rayaṇī (Skt. rajanī, RM) jahana (Skt. jaghana, RBR) amanātya (Skt. amātya) kehuṇi, keuṇi for Modern Or. kauṇasi (Skt. kaḥ punaḥ Pkt. kevaṇa NC) dhaṛasa 'quickly' (NC) daaṛa 'chief door-keeper' (Skt. darvaṭa, NC) sāhera (Skt. sāgara, BA) bhrasala for Modern Or bhaā̃ra (Skt. bhramara, BA) laibā for mod. Or. nebā 'to take' (Skt. labh-, BSAS, RB etc.) gaũchibā 'to adorn' (JC, RB) behā for Mod. Or. bibhā (Skt. vivāha, JC) sabhiye for mod. Or. sabu (Skt. sarva, RBh) kike for mod. Or. kāhī̃ki 'why' (UBh) kheṛa for mod. Or. kheḷa (GBG) tahiṇa 'there' (GBG) for Mod. Or. tahī̃ (tasmin) kaṇḍeāra for mod. Or. kāṇḍhārī 'helmsman' cf. O.B. kaṇḍhārā (Skt. kāṇḍadhāra, RB) balaha (Skt. vallabha, RB) bacha (Skt. vṛkṣa, RBR) udhaṭa (Skt. uddhata, RBR) yisa (Skt. yādṛśa, RBh) for mod. Or. yeũ ; kisa 'of which' (Skt. kasya, *kiṣya, RB) etc.

Without going into the discussion of the development of Oṛiyā accent system which will be treated elsewhere, some phonological aspects of Old Oṛiyā may be summarized thus :

i) Earlier pronunciation of OIA ṛ as -ṛi- : In *tatsama* and *semi-tatsama* words modern Oṛiyā always represents OIA ṛ as -ru- which prevailed from 15th century onwards. The spellings like pṛṣottama. pṛṇā, gṛbāre (Puri inscriptions, EOLS) for puruṣottama, puruṇā, gurubāre respectively, indicate that -ṛ- was equivalent to -ru-. The orthography of earlier

literature of Oṛiyā confirms also the same fact. For instances, O. Or. dhṛba for dhruva, śṛti for śruti (BGi) nairuta for nairta (RM) śatṛghna for śatrughna (GBG) bhṛ for bhrū (JC) ghṛma for ghūrma (PBG) etc. But still the -ru- pronunciation was not widespread. Starting from 13th century onwards, the -ri- value was extant side by side with -ru-. For instances, O. Or. inscriptions : riṇa for ṛṇa, Risidāsa for Ṛṣidāsa, sukrita for sukṛta, kiṣṇa, kirṣṇamā for kṛṣṇa-, kittibāsa for kṛttivāsa (*vide* EOLS p. 103) ; also krīṣṇa for kṛṣṇa (13th c. insc. : Typical Oriya Selections by A. B. Mahanty) vritti for vṛtti (1271 A. D. inscription of Bhānudeva of Gaṅga Dynasty) krimi for kṛmi (16th c. insc. of Siṃhācalam of Govindadeva) ; or, the representation of kṛṣṇa as kri- beside kriṣṇa (*ibid*) kiriṣāṇa for kṛṣāṇa (MBh Sv p. 4) tiraṇa for tṛṇa (MBh B pp. 9,69, also Kaḷasā Cautiśā) kripa for kṛpa (BGi) śrījili for sṛjili (BGi) dhirati for dhṛti (BC) etc.

ii) Earlier pronunciation of OIA ṣ as -kh- : A non-Māgadhan feature of pronunncing OIA ṣ as -kh- in *semi-tatsama* words was extant sporadically in earlier Oṛiyā. At present it is always pronounced as alveolo-palatal fricative like Bengali (*see* pp. 235-236). In the medieval pronunciation of Sanskrit, -ṣ- became -kh- possibly through velar spirant [x] in Northern India (ODBL p. 460). This kh- pronunciation was imported, though not widely, into the eastern languages. For instances, Mid.B dokha (Skt. doṣa) harikha (harṣa) barikhana (varṣaṇa) NB rokh (roṣa) ; Ass. ākhad (auṣadha) ākhudi (auṣadhi) rukhārī 'angry' (roṣa) ; Mai. rokha, barkhā ; Old Oṛiyā brikha-bhānu (vṛṣabhānu, PBG, RBR) bhākhā (bhāṣā, UBh, PP, RM) also in B, Bh ; Compare also modern usage : *eka lekhā sahasre bhākhā* 'One writing is more important than thousand speeches' ; purukhā (puruṣa, Bh. ii, p. 66) etc.

iii) Earlier pronunciation of OIA kṣ as -ch- : OIA kṣ had twofold developments in MIA. They were ch, cch and k, kh. OIA kṣ developed into -ch- in the North-west and West and kh in the Midland and the East, viz. OIA kṣetra Pkt. chetta Marāṭhī śet ; but in B. Ass. khet Mai. kheta ; In modern Oṛiyā, OIA kṣ is pronounced as (k)khy. For examples, sākkhyāta (sākṣāt) akkhyaya (akṣaya) nakkhyatra (nakṣatra) etc. But if it is followed by a front vowel, it is simply pronounced as kkh, viz. dakkhiṇa (daksiṇa), sākkhi (sākṣī) etc. In initial syllable it is kh, but sometimes khe, viz, khaṇa, kkheṇa (kṣaṇa). In Bengali and Assamese, kṣ is also kh (initially) and kkh (medially). In Maithilī it is kh, kkh in *tadbhava* words and ch, cch, kch in *semi-tatsama* words (FM pp. 154, 193). In old Oṛiyā, the pronunciation was twofold :

(a) as kh : for instances, sākhi, dakhina (sākṣī, dakṣiṇa, EOLS) ākhi (MBh K p. 24) beside ākṣi (Skt. akṣi, MBh. Sv. p. 27). Compare also the rhyme in the Mahābhārata of Śāralādāsa, mokṣa/bimukha (M. p. 28) kukṣi/dekhi (U. p. 20) nirikṣi/dekhi (U. p. 71) etc.

(b) as ch : For instances, sāchi (sākṣī) parichā (parīkṣā) [in scr. EOLS] samakaccha (samakakṣa, MBh As. p.30) china (kṣīṇa, Kaḷasā) chariba (kṣar- PBG) chatri (kṣatriya, RB) chiti (kṣiti, RBR) chata (kṣata, RBR) machikā (makṣikā, JC) bacha (vakṣa, PP) icchu (ikṣu, PBG, JC) pachī (pakṣī, SSN) ākañchā (ākāṅkṣā, RM) antricha (antarīkṣa, RM) cacchu (cakṣu, RBR) bacha (RBR) bṛcha (CM, ii) Mod. Or. brucha (Skt. vṛkṣa) parichā (Skt. parīkṣaka, NC, also inscr.) arcchita (Skt. arakṣita, Kaḷasā, Bh) mṛgāchi (Skt. mṛgākṣī, UBh).

In many instances, the letter -kṣ- is employed to denote -ch-, viz. O. Or. kṣidra for chidra (BSAS) sārikṣa, sāricha (sadṛśa, RM) apakṣarī (BA) beside apacharī (PBG) for apsarī, kṣakṣandra for svacchanda (Keśava Koili). The rhyme in many cases too, indicates the phonetic value of -kṣ- as -ch-, for examples, tuccha/mokṣa (BA) cakṣu/pucchu (BG) ākṣī /kichi (MBh Md.) kakṣā/icchā (MBh U). Stray examples are found in modern Oṛiyā where ch-value of OIA kṣ prevails, for instances, modern Oṛiyā uchuṇi for ehi kṣaṇi 'this time', brucha for vṛkṣa 'a tree' etc.

iv) In modern Oṛiyā, at least in the standard colloquial and northern dialects, an intervocalic -h- is elided as in Bengali. But in early Oṛiyā, this -h- is seen to be preserved in many instances, viz. O. Or. egāraha (MP) for modern Oṛiyā egāra (Skt. ekādaśa), chatiśaha (MP) for mod. Or. chatiśa (Skt. ṣaṭtriṃśat), soḷaha (MP) sohaḷa (MBh) for modern Oṛiyā ṣoḷa (Skt. ṣoḍaśa), bohita (JC, CM. i) for modern Oṛiyā boita (Skt. vahitraka), samehā 'a representative', modern Oṛiyā chāmuā (cf. Skt. sammukha, BA).

Loss of aspiration in medial and final syllables in the standard colloquial and northern dialects are also worth mentioning here, viz. houci for houchi 'has become', āsici for āsichi 'I have come', kāī-ki for kāhīki 'why, for what' etc.

v) The raising of the vowels -e- and -o- to -i- and -u- respectively is a notable feature in modern Oṛiyā. No doubt, the tendency had its origin in earlier times. In many instances of the earlier documents is to be found the old phonetic habit existing side by side with the new one. Below is given some old Oṛiyā forms : Old Oṛiyā tentalī (inscription of Govindadeva) for modern Oṛiyā tintuḷi, tintiḷi 'tamarind' ; O. Or. deli, delai (inscr.) for modern Oṛiyā dili 'I gave' ; kacheri for modern Or. kachiri 'a court-house' ; O. Or. gheti, ghetibā (PBG) for modern Oṛiyā ghitibā 'to take'; O. Or. koṭoyāḷa (MBh. N) mod. Or. kaṭuāḷa (koṣṭhapāla) ; O. Or. loṇa mod Or. luṇa ; O. Or. loha (PP, GBG, UBh), lohā (GBG) Mod. Or luha ; ṭho—a postpositional affix (insc. EOLS) [Skt. sthāma, ṭhāW~a, ṭhāũ, ṭhau] mod. Or.-ṭhũ ; nohai beside nahai. nuhai (Skt. na *asati RM, BSAS, ChG etc.) mod. Or nuhe ; Compare also OB jonha (Skt. jyotsnā) mod Or junha.

vi) The changes of -o/u- to -a- : A few words illustrate the change of -o- in the initial syllable to -a-. The tendency is very frequent in modern Oṛiyā. Amongst other Māgadhan dialects this tendency is in striking evidence in the Bihārī dialects (LSI V. ii p. 147). It is also a characteristic feature of Western Assamese (Kāmrūpī) [FA ff 211]. Though the tendency is of recent origin, examples are not infrequent in other eastern languages to show that the feature is peculiar to the eastern languages only. Compare Or. gahama B gam (Skt. godhūma-) Or. johara B jahar (Skt. jatugṛha) Or. sajanā B sajinā (Skt śobhāñjana); Ass kar 'bud' (Skt. kora), sajinā, mathā 'an aromatic plant' (Skt. mustā) etc. For examples in Oṛiyā : O. Or. junha (MBh) for modern Oṛiyā janha (Skt. jyotsnā) cf. OB jonha, O. Or. koṭoyāḷa (MBh N) for kaṭuāḷa (Skt. koṣṭhapāla), O. Or. aluṇi (GBG) for mod. Or. alaṇā, cf. luṇa (Skt. lavaṇa), O. Or. tombhe, tumbhe for mod. Or. tume, tame (Skt. *tuṣme, *tuṣmābhiḥ), mod. Or. tate for earlier tote (tava-), maku for moku (mama), mod. Or. moṇḍa beside maṇḍa (mūrdhan, Pkt. muḍḍha, muṇḍha), O. Or. anturī for mod. Or. ātaṛa (*antaḥ-kuṭa-) cf. OB antauṛi; compare also Or. pahañcibā beside pahuñcibā (Pkt. pahuccai) 'to reach', ḍaṅgā (Pkt. doṅga) ḍama (omba) etc.

The change of -e- to -a- : The lowering and the change of quality of -e- taking place simultaneously is a notable feature of modern Oṛiyā. Earlier occurences seem to be due to interpolations or scribal errors. For instances, dabu for debu, dabā for debā (MP), Jamasara for Skt. Yameśvara (EOLS), Modern Oṛiyā dabā, habā, nabā for debā 'to give', hebā 'to be', nebā 'to take' respectively.

vii) The vowels -oa- in contact becomes -ua- in modern Oṛiyā, a quite contrast to Ass B Mai and Bh. -o-. The change of Late MIA -ea- to Oṛiyā -ia- is also worthy to be mentioned here where the same raising of the first member of the group vowel has taken place. For instances, O. Or. oa, oā : Mod. Or. ua, uā : O. Or. loya (SSN), lua (RB, BC) mod. Or. luha 'tears' (Skt. lotaka), poa beside pua (MBh U) mod Or. pua 'son' (Skt. pota-), O. Or. koṭoyāḷa (MBh N) mod. Or. kaṭuāḷa (Skt. koṣṭhapāla), O. Or. daṇḍoāsi (15th c. insc. EOLS) mod. Or. daṇḍuāsi (also in JC, Skt, daṇḍapāśī), O. Or. goāḷa (RM) cf. OB gohāli mod. Or. guāḷa (Skt. gośālā), O. Or. paṭoāra beside paṭuāra (MP, BA) 'a procession', O. Or. cakoā (RBR, SSN) cakoyā (RBR) mod Or. cakuā (Skt. cakravāka), O. Or. jamāi for jaW‿āi cf. Ass jôwāi mod. Or. juāĩ (Skt. jāmātṛ).

O. Or. ea, eā : mod. Or. ia, iā : O. Or. leā (insc. EOLS) mod. Or liā (Skt. lājāḥ), O. Or. nea (MP) '(you) take' mod. Or. nia (Skt. labha-), O. Or. dea (MP) mod. Or. dia (Skt. deva-) cf. also deo (insc. EOLS), Or, tiaṇa beside tiuṇa 'curry' (Skt. temanam 'sauce').

viii) The development of an intervocalic -h- glide is a new practice gaining ground gradually in modern or middle Oṛiyā. The earlier Oṛiyā examples show that the words with W/Y-glide are often represented by -h glide with accompanying *samprasāraṇa* of the earlier -W- in the modern stage of Oṛiyā on the one hand, and have resulted into -b- on the other as in Maithilī *vide* FM ff 73. For the detailed treatment, *see* pp. 50-52. Some examples are given below :

O. Or. poeḷā (UBh), poyeḷā (GBG) mod. Or. pohaḷā 'coral' (Skt. pravāla), O. Or. loya (SSN) lua (RB, BC) mod. Or. luha 'tears' (Skt. lotaka), ābara, āūra (Inscr. EOLS) mod. Or. āhuri (Skt. apara), O. Or. pābacha (AKG etc.) mod. Or. pāhāca, pāucha 'staircase' (Skt. pādakṣepa ?), O. Or. bāhana '52' (TB), bābana (BA) bābana, bāuna (MBh) mod. Or. bāna (Skt. dvāpañcāśat) cf. B bāhānna', O. Or. labaṇī (GBh etc.) mod. Or. lahuṇī (Skt. navanīta) etc.

ix) The Late MIA group-vowel -ai- in initial and medial position becomes -e- or -i- after contration in Oṛiyā. But in old Oṛiyā, the affix of the verb in 3p. singular present (i e., ai from Skt-ati) is seen to be preserved especially as in OB OMai and Awadhī, old and new. For instances, O. Or. karai, kahai, dharai, dei pārai, marai, laṅghai, lāgai, harai (Skt. karoti, kathayati, dharati, pārayāmi, marati, laṅghayati, lagyate, harati cf. EOLS) for mod. Or. kare, kahe, dhare, pāri, mare etc. Also hoai (PG, NC) hoi (BrN) hoe (AKG) hoye (DR,RBh) hue, huai (AKG) for modern Or. hue (Skt. bhavati, bhūyate) pochai (MBh U p. 31) [Skt. proñchati]. Besides the contracted froms like hue, hoi as above, we get also achi, pr. 3p. sg (15th c. insc. EOLS), nuhe (insc. EOLS) beside nuhai (ChG) nohai (RM,PP) for mod. Or. nuhe 'is not' (Skt. na + subjunctive asati).

x) The change of -āi- to -ei- is a peculiar phonetic feature in modern Oṛiyā which is often ascribed to Tamil mode of pronunciation of -āi- to -ei- (Caldwell : CGD p. 136). This habit is frequent in the numerals, causative and denominative verbs in modern Oṛiyā (compare kareibā, haseibā, aṛhei, sateiśi etc.). Possibly the change started with -ai in the final syllable and the tendency goes back as far as 15th centuary A. D. For instances, O.Or. karei (karoti) jāṇei (jānāti) punei (paurṇamī) [inscriptions, EOLS], deitāpati for daitāpati (MP) saṅgei beside *tatsama* saṅgati (GBG), aṛhai (ardha-trika, SC), ṭheī beside ṭhāī (Skt. sthāma, PG) sataisa (SC) for mod. Or. sateiśi (saptaviṁśati). etc. The mutated vowel-group may be taken as the survivals of Prākrit forms jāṇei, karei etc., but the tendency has been gaining ground in the later stage. Hence, it may be taken as the early step of modern tendency.

xi) The change of -oi- to -au- (written in old Oṛiyā often as *au*-letter) ; also -ai- to -au- possibly through -oi- : The phonetic habit is confined to early Oṛiyā which is traceable as far as 13th century A. D.

For examples, harai, haroi (EOLS); bhayeṇī (BA, RM) bhayiṇī (1271 A. D. inscription of Bhānudeva I) bhaïṇī (JC) mod. Or bhauṇī (Skt bhaginī); O. Or. hauba for hoiba (16 th c. A. D. insc. OHRJ Vol. V no. iv); hau beside hoi (Srijanga Stone pillar insc. OHRJ Vol. VI part iv); kauna (from *kainya Skt. kanya, OHRJ Vol. V. pt. iv), compare the reading of Dr. Tripathi, kaïna (EOLS 49/2); dhaürya (UBh p. 67 RB p. 46) for Skt. dhairya; mod. Or. ekoiśa (also in MBh, SNG p. 25 etc.) beside ekauśa (BSAS 4th chānda, Bh. i) for Skt. ekaviṃśati; jautiṣa (PP etc.), jaütiśa (TB) <*joitiṣa<Skt. jyotiṣa. (*See* p. 107).

xii) Vowel Harmony or Harmonic Mutation of vowel is an important phonetic feature of modern Oṛiyā. Harmonic Mutation is a kind of vowel change by which the high or low quality of a vowel in a following syllable conduces to a similar modification in a preceding one. This type of change had started in the formative period of Bengali, Assamese and Oṛiyā. The change of a/i to u/i was found also in old and early middle Bengali (cf. OB pākhuṛī, pokhirī SKK ekhanī/ekhunī, pahara/pahurī etc.). The similar development is attested even in cognate words of Ass. B. Or. For example, O. Or. pokharī (MP, BGi) but pokhuri (Insc. of Nṛsiṃhadeva IV, 1396 A. D.) OB pokhiri B pukur Ass pukhuri as opposed to OMai pokharā Mai pokhari Bh pokharā OAw. pokhari etc. (*See* chap. IX).

Without going into details, the earliest types of Vowel Harmony in Oṛiyā are mentioned below:

a) -a- before i, y, e, ā becomes -u- + i, y, e, ā through an intermediate stage -o- before i, y, e, ā: For instances, O.Or. āñjaḷi (MBh U p. 38) but āñjoḷi (JC., RB) for modern Oṛiya āñjuḷi (Skt. añjali); śāṅkoḷi (PG, BGP, MM) for mod. Or. śāṅkuḷi (Skt śṛṅkhalā); nohai (PP, RM) nuhai (BSAS, RM) beside nahai (BSAS, ChG) for mod. Or. nuhe (Skt. na plus subjunctive asati); pākhaṛā (ChG, MM) cf. OB pākhuṛā mod. Or. pākhuṛā (Skt. pakṣma) koṭoyāḷa (MBh N) for mod. Or. kaṭuāḷa (Skt. koṣṭhapāla); pokharī (MP, BGi) pokhuri (1396 A. D. Insc. EOLS) cf. OB pokhiri (Skt pauṣkara pkt. pokkhara); mitaṇī (TB, UBh) for mod. Or. mituṇī Skt. (mitrāṇī); nācaṇī beside nācuṇī (insc. cf. EOLS 42/5, 33/5, 6, 9); cāṅgaṛā beside cāṅguṛī (MP, JC) 'a basket'; pañjarī (UBh) beside pañjuri (JC) 'a cage' etc.

b) -a- before i, y, e, ā becomes -i- + i, y, e, ā through an intermediate stage -e- + i, y, e, ā: For instances, O. Or. sāraṇī (BC) sāreṇī (BC) sāriṇī (KBS); sāmigrī (sāmagrī, MP); ahilyā, ahilā (ahalyā, GBG); mod. Or. cākiri but cākeri (Bh ii); Kalubarigeśvara (insc. of 1587 A. D.) for Kalabaregeśvara; mod. Or. kaciri from kacheri (Skt. kṛtyagṛha); gāraṛi, gāreṛi (MBh Sv., K) for mod. Or. gāriṛi etc.

xiii) Epenthesis is not a noticeable feature in the standard colloquy of Orissa. Though it is not fruitful in the dialects of Puri and Cuttack

Districts, it is a characteristic feature of the Western dialect (cf. EOLS p. 215). Nevertheless, the earlier history of the language clearly shows its the then existence. Below is given a collection of few examples of epenthesis :

O. Or. āiṃgā beside āgyā (Skt. ājñā, 15th c. insc. EOLS) ; rāija (Skt. rājya- 15th c. insc., also in MP) ; nirimāila (Skt. nirmālya, 15th c. insc.) sarba-māinna (Skt. sarva-mānya, insc.) ; koilā (Skt. kulyā, MP) ; Laikṣaṇa (Skt. Lakṣmaṇa, GBG, RB) ; sainyāsī (Skt. sannyāsī, GBG) ; bāida (Skt. vādya, GBG) ; airi (Skt. ari if not a contaminated Skt. ari and vairī. BGi) ; jautiṣa (for *joitiṣa Skt. jyotiṣa, PP etc.) kaina, kauna (16th c. insc. for *kainya Skt. kanya-) ; kointā (MBh U, also PG) beside kuintā (MBh K) for Skt. kuntī ; pāruśa (MBh) possibly from *sts.* *pāiśua (Skt. pārśva) [cf. Or. tatua for Skt. tattva] ; gaṇṭhiāḷa (BB) but modern Oṛiyā gaĩṭhāḷa, gaiṇṭhāḷa 'a knot in the dresses of the newly married couple' (Skt. granthi-).

xiv) Diphthongization of the group-vowels -ai- and -au- was not complete in early Oṛiyā. Though the Oṛiyā alphabet has two letters for diphthongs -ai- and -au-, the modern orthography does not permit them to be used in *tadbhava* words. For instances, khaira (khadira), kaitha (kapittha), naī (nadī) kauṛi (kapardikā) bhauṇī (bhaginī) etc. But at least, the orthography of NIA words in old Oṛiyā suggests that the diphthongized as well as the dissyllabic pronunciation of -ai- and -au- went hand in hand ; and as such the diphthongs -ai- and -au- were written as ai, aï, ayi and au and aü respectively. For instances, amābai beside amābaï (EOLS), bhāī (EOLS 9/7) beside bhāyi (insc. of Bhānudeva I, 1271 AD) bhaīṇi (*ibid*) beside bhayiṇi (*ibid*). āuśa beside āyuṣa for Skt. āyuṣ (13th c. insc.), ahibrata (RBh) aïbrata and aibrata (NC p. 49) beside ayubrata (MBh N p. 15) aibrata, aïbrata (MBh B pp. 88, 94) for Skt. ayuta-, ayutāvarta, paüṭi beside pauṭi (MBh U 56, 57), maüṛa, mauṛa (MBh U p. 44), jaintā beside jayantā (MBh U p. 128) etc.

xv) In modern Oṛiyā the euphonic glides Y/W are not represented usually in orthography. For examples, diara (Skt. devara) dia (Skt. deva) kiāri (Skt. kedārikā) kuāra (Skt. kumāra) juāī (Skt. jāmātā) etc. But in old Oṛiyā, the insertion of glides, though often with confusion of y/w, was not infrequent. The letters -y- and -b- were employed in place of Y-glide and W-glide respectively. In some cases -e- for -y- was not rare. In few instances of earlier inscriptions, -v- is used for W-glide (cf. EOLS pp. 71,374).

For instances of Y-glide : triya (SNG, PBG) for Skt. trika ; amiya (PBG, RB) for Skt. amṛta ; bhūagni beside bhūyagni (ChG) ; bhaeṇi beside bhayeṇi (BA, RM) ; daita beside dayita (KhB) for Skt. daitya ; iāḷā-piāḷā (MBh Md), iyāḷā-piyāḷā (ChG) for Skt. iṅgalā-piṅgalā, aeḷā (MBh.U), ayeḷā (GBG) for Skt. āmalaka, hiā beside hiyā (ChG) for Skt. hṛdaya etc.

W- glide : vahāṃkkara 'their' from the base -u- (13th c. insc. EOLS p. 2.9), gābe for mod. Or. gāe (Skt. gāyati, SSN etc.) gābanti (Skt. gāyanti RM) bābe for bāe (Skt. vādāyati, Rasakulyā etc.) cp. bāhe (UBh), bābanti (Skt. vādayanti PC, GBG, RM), śibāḷa for śiāḷa (Skt. śṛgāla. PG gāṅgeba for Skt. gāṅgeya (BGi) abābi (Skt. avāyu, PBG) naṭuvā for naṭuā (1271 A. D. insc.), Naruvā beside Naruā 'a place-name' rakhuvāḷa for rakhuāḷa (EOLS) for Skt. rakṣapāla etc.

CHAPTER I

OIA AND MIA VOWELS IN OṚIYĀ

FINAL VOWELS

The final consonants of OIA were already lost in MIA with the result that all words in MIA ended only in vowels. These along with the final vowels of OIA continued down to Late MIA and early NIA times (cp. asmākam > amhākaṁ > ambā-, mithyā > micchā). The long final vowels -ā, ī, ū- however, were shortened to -a, i, u- and -ē, ō- were shortened to -i, u- in Late MIA (LM ff 37); and these shortened vowels -a, i, u- coalesced with original short vowels a, i, u. All NIA languages inherited these short vowels, but they began to be dropped or assimilated in later times, except -i, u- where they were preceded by vowels of a different quality.

The *anusvāra* which followed a final vowel in Late MIA was possibly a very weak nasalization, which did not in any way affect it in its development into NIA (ODBL ff 148).

The reason for the decay of syllables of the final sounds is ascribed to the absence of stress-accent on those syllables which was a potent factor in MIA. The loss of the final consonant on the other hand, was due to implosive nature of OIA consonant in final position (Turner : Some problems of Sound change in IA. p. 17).

The disappearance of final short vowel of the Apabhraṁśa stage after a consonant, though is common to most of the modern languages (cf. Ap. gharu, phalu, P.H B. Ass ghar, phal, Guj. Mar. ghar, phaḷ etc), the exception is met with Kāśmirī, Bihārī, Sindhī, Singhalese, Oṛiyā and some dialects of Koṅkaṇī (FK ff 17). It should be noted that the final long vowels of the modern languages should not be taken as the original vowels; they are nothing but the result of contraction.

So far as the eastern languages are concerned, the dropping of final vowels has started at different times in the different languages. Eastern Hindī and Western Hindī both appear to have retained them in full up to the seventeenth century. Final -a- was decidedly pronounced in O.Aw (UVP ff5). In the modern dialects of Awadhī -a- [ʌ] does not occur finally (E.Aw. ff103). The development of whispered vowels at the end of a word for the earlier -i,u,e- is a peculiar feature in the western dialects of Awadhī. The whispered vowel is a vowel but with the irregularity of its having no vibration of the vocal chords and that of its incapability of making syllables (E.Aw. ff113-119). Though

nothing definite could be arrived at whether O.Aw. possessed such weak vowels, the interchange of -i- and -e- in some cases in UVP strongly shows a short value of -e- beside long -ē-, cf jaṇe (10/7) beside -jaṇī, jaṇi-(10/9, 10/11) [cf. UVP ff6].

The dropping of the final unaccented -a- seems to have become established in spoken Maithilī by the beginning of the 16th century (VRC intr. ff3). The orthography of the *mss.* of VR reveals in such examples as -aïsandurlakṣa, kaisanāha, tīnū- beside -aïsana duḥpraweśa, kaisana āha, tīnahu-, that the shortening of the final vowel is manifesting itself in the beginning of the 16th century (VRC ff 3 FM ff 69). Modern Maithilī has acquired very short values of MIA a, i, u and that they are of *schwa* value may be detected from the interchange final -i, u- with -a- (FM ff69).

In Bhojpurī the final vowels have disappeared, but traces of them are found in the case of final -ĭ-, a half-pronounced vowel, almost inaudible in the dialects of Ballia, but altogether lost in the dialects of Benares (ODBH ff80).

In Bengali, however, final vowels appear to have been entirely lost as early as the middle of the 15th century (ODBL ff148) and Middle Assamese after its separation from Bengali in the 13th century, has achieved the same phonetic habit (FA ff154).

Oṛiyā stands apart from the other eastern languages in so far as it has retained the final vowels to the full. Though the assimilation of vowel groups like -ā̆a, ia, ua- into -ā̆, i, u- is alike in having parallel developments with the other eastern languages, they are found still to be retained as unassimilated forms in many words. The OIA final -ā, i, u- on the other hand, strengthened by addition of suffixes, are preserved in contradistinction to B. Ass. Bh. and Awadhī.

The next important feature is the retention of MIA ea, oa, as Oṛiyā ia, ua as opposed to B. Ass. Bh. Mai. Here also the loss of final -a- by assimilation with a preceding vowel does not take place; and as such, the mutation of the first component of the group-vowel is inevitable, the retention of final -a- being a so important factor. Thus the final groups of Oṛiyā ā̆a, ia (<ia, ea), ua (<ua, oa) exhaust the final course of development of Late MIA.

The retention of MIA -e >i- in final position is perhaps more numerous in Oṛiyā than any other eastern languages though the western feature of final -u- (<Ap. o) is not rare.

The *samprasāraṇa* of -āWa, āYa, eYa, eWa, iWa etc. into -āu, āi, ei, eu, iu- etc. should also be noted. (*See* also p. 62).

The mutation of final -i, u- to -a- is also noticeable in Oṛiyā, the parallel of which is found in Maithilī (FM ff 69).

CHANGES OF FINAL VOWELS

(A) OIA a

(i) OIA a >MIA a >Or a [ɔ] or rather lax (ò); OB eMB a = [ɒ] NB Aw Bh Ass nil. OAw a [ʌ] possibly up to the 17th century. Mai. *schwa* -ᵃ-.

For comparative study we may cite Or ōṭha 'lip' (oṣṭha pk oṭṭha) Ass òṭh Bh ōṭh Mai oṭha Aw òṭh; Or pathara (prastara pk patthara) O Aw Mai OB pāthara Aw Ass NB pāthar Jn pātharu Bh pathal etc. Examples from Oṛiyā: bāṭa (vartman) 'way', dānta (danta), kumbhāra (kumbhakāra) caka (cakra) adha (ardha) 'half', pacha (paśca-) cāḷiśa '40' (catvāriṁśat, Ap cālīsa) aga (agra) pākha (pakṣa) 'side', kācha 'loin-cloth', kākha 'arm-pit' (kakṣa) etc.

The OIA nasal conjuncts and also -ṁs, ṁś- are always pronounced with final -a-, viz. Or bāũśa (vaṁśa) cf Mai bã:sa B bã:ś Ass bã:h; Or māũsa (māṁsa) Mai mãsu Bh mã:s B mãs etc.; also Or haũsa (haṁsa) 'duck', pāñca (pañca) raṅga (raṅga) 'colour' B raṅ; thaṇṭa 'beak' (troṭi, tuṇḍa) B. ṭhôṭ etc.

Sometimes, final closed consonants are pronounced with a superfluous -a-, viz. yābata (yāvat), tābata (tāvat) [also in inscr.], sata (sat) 'good'.

The words with -a- lost are very rare: Or khud 'small rice particle' (kṣudra) kākh (kakṣa) kackac 'restlessness', ācambit 'astonished' (skambh) bhuk (bubhukṣā) pharphar 'flapping sound', nacet 'otherwise'; also in verbs of non-honorific, imp. Sg. tu kar but tume kara; in interrogative kaṇ for kaṇa; and in some onomatopoetic words. The loss of final -a- is best seen in foreign words: Ar pharak, mijāj, maharam Eng bāīsikl 'bicycle' (*see* p 214).

(ii) MIA aha: MIA aha, a resultant of OIA asa, aśa usually, becomes -a- by contraction in Or B Ass; whereas the h-element is preserved in Old Oṛiyā, Mai Bh Old and Middle Aw and H as opposed to Mod Aw where -ah> ā- regularly. In Bengali, -aha usually becomes [ɔ] or [o] = Mid B á [ɔ:] (ODBL p 402). Examples: Or aṭhara (aṣṭādaśa pk aṭṭhārasa, Ap aṭṭhāraha) Jn aṭharā OMai aṭhāraha, -raho Mai O/Mid Aw aṭhāraha Aw aṭhārā Bh aṭhārah (dial aṭhāre) Ass oṭhar B āṭhāra' = āṭhāro; Or egāra (ekādaśa pk egāraha) O Or egāraha (MP) OMai egārahe Jn akarā (pk ekkāraha) Mid Aw egayāraha Aw gerā Mai egāraha Ass eghāra, āghāra Bh egārah (dial igārah, igāre) B egāra' = ægāro; Or pandara (pañcadaśa pk paṇṇarasa Ap paṇṇaraha) OMai pandraha, -ahe Jn paṃdharā, panharā Aw pandarā Ass pondhara Bh panarah, (panare) B ponero Mai pandraha; Or caüda (caturdaśa) OMai caüdaha Jn caudā Mid Aw caudaha (J, T) Aw caudā Ass caidhya, caudhay Bh caüdah, (caude) B coddo; Or bāra (dvādaśa) OMai bāraha, -hu Jn

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Aw bārā Mid Aw Mai bāraha Bh bārah, (bāre) Ass bāra, bāhray B bāra' = bāro; Also Oṛiyā tera (trayodaśa) ṣohaḷa<*soḷaha (ṣoḍaśa) satara (saptadaśa) panāi (upānah)<earlier panhāi cf Mai panahī 'sandal' Or chatiśa cf O Or chatiśaha (MP) [ṣaṭtriṃśat].

It is very interesting to note that Assamese has always maintained the h-sound in case of the numerals but with metathesis (Ass eghāra, bāhray, pondhara, caidhya). The same metathesis of aspiration is also met with Oṛiyā and other languages; viz Or gadha (gardabha pk gaddaha, gaḍḍaha) Jn gādhava, gāḍhau Mai gaddaha, gadahā, gadhā Bh gadahā Ass gādha B gādhā; Or bighā (vigraha pk viggaha) Ass B Mai bighā Mai bigahā; Or kacheri (*kṛtya-gṛha-) Bh kacaharī Mai kahacarī, kacahari B Ass kāchāri (*see* p 37).

(iii) MIA aa (<OIA a + consonant + a): B Or Bh Mai Ass -ā- Mai short -ᵃ-; for examples: Or tambā (tāmraka) OMai tama—(kuṇḍa) Mai tāma OMar tāmba Bh B tāmā B tã:bā Ass tām(a) etc.

Also Or dhuā: (dhūmraka) Jn dhû:; juā (dyūta-) cf Jn jû:; Or citā 'painted' (citraka) kaṇṭā (kaṇṭaka) Oṛiā (auḍrīyaka) ākhaṛā (akṣavāṭa) āaḷā, āḷā (āmalaka) luhā (loha-ka) pituḷā 'doll' (puttala-ka) kiā (ketaka) kākaṛā (karkaṭa) also kakaṛā, sunā (suvarṇaka) laṅgaṭā 'naked' (nagnaka) bachā (vatsa) jaḷantā as in *jaḷantā dīpa* (jvalantaka), gāā: (grāmaka) kukuṛā (kukkuṭa-ka) pārā (pārada) also (pārāvata) baḷā (valaya) [also in inscr].

(iv) Retention of MIA aa: But the contact vowel -aa- is often found in Oṛiyā to be uncontracted or, lengthened (i.e. ɔ:) in contrast with other eastern languages, viz Or naa / na' (nava pk ṇava) OB naa B Ass na OMai nawa Mai nɔ Bh naw; Or chaa / cha' [cf Skt ṣaṭ, *kṣaṭ, *kṣvaṭ *vide* ND p 189, *kṣvakṣ *vide* Guj. Phon.: Turner ff 89 (1)] Jn sāhā OMai chahu, chao Mai chɔ B chay Aw chā Bh chaw, (cha, chay) Ass chay cf *cha-mahīyā* 'half-yearly'; Or śaha '100' for śaa/śa (śata) O Mai sae tīni '103' O Aw saü Aw saya, sau, sai Bh saī, (saw) Ass sa Jn syā B śɔ'; Or jaa (yava pk java) B ja Ass ja-dhān Bi jau.

(v) Late MIA ăYa: MIA ăya (<OIA ă + consonant + a) become -ăi- in Oṛiyā after *saṃprasāraṇa*. The tendency is found in *sts* words of Old Oṛiyā ending in -aya, for examples: O Or biṣe (viṣaya, BGi) ude (udaya) cf Jn udo; Or āḷe (ālaya) cf O Mar āḷe, devāḷe B nirālā (nirālaya); O Or āśre beside āśrā (āśraya) OMai aśrae Jn āsro. The line of development possibly is -aya- >*aĭa> ai> aĕ> æ> e [compare bāibya (GBG) bāibe (PBG) for vāyavya; kaṣāi (SS) for kaṣāya] or, the development may be such as aya>*aĭa> ea> e compare, O Or niśceya for Skt niścaya (RH p 45). Examples of words of *tbh* origin: Or ṭhāi beside ṭhā (sthāma pk thāma Ap thāû, ṭhāû <*ṭhāY~a ṭhāW~a instead of taking *thāme *vide* ODBL p 492). The form with W- glide becomes -b- elsewhere as in Modern and Old Oṛiyā ṭhāba cf Mid Aw

ṭhāũ Aw ṭhaur 'space' OB ṭhāvī Jn ṭhā:yi, ṭhāya, thā:ya, ṭhāva Mai ṭhɔ~, Bh ṭhāĩ, ṭhāw Ass ṭhāw, ṭhāi ; Also Or chāi (chāyā) bāi 'sound' (MBh U p32) for *bāya (vāda-) rāi for *rāya (rāva) liā 'fried rice' <*lāi (lājāḥ> *lāyā).

(vi) Late MIA ă̄Wa : MIA ă̄wa (<OIA ă̄ + consonant +a) similarly is vocalized to -ă̄u- in Oṛiyā possibly through ă̄Wa>ă̄ūa. The tendency is best found with ă̄ + labial + a, beside ă̄ + W + a. For examples, Or phāu 'the extra given with purchase' (*sphāta- cf sphāti 'increase' pk phāya *phāWa) cf B phāu Ass phāŏ, phāik 'much' ; Or bhāu 'value' (bhāva- 'existence' pk bhāva, *bhāWa) Or kādua 'mud' (kardama, kaddama, *kaddaW~ a) OMai kādawa Mid Aw kādau (J) Bh kānō Mai kādō, kādabā B kādā, kādō etc ; also Or bhādua (bhādrapada) chuā for *chāu (śāva- pk chāva) cf liā for *lāi (lājāḥ) cāndua (candrātapa) āu (api) O Or nau (nava MP) Mod Or tāu (tāpa) O Or ghāu (Rasakulyā) Mod Or ghā (ghāta). For the development of -b-<W-glide, in Mai *see* pp 45, 47-48, 51.

Similarly Late MIA eYa, eWa, iWa>Or ei, eu, iu etc. : Examples : Or lei 'paste, starch' (lepa pk leva *leYa, lei), Ass lei 'paste', leŏ, lew 'thin layer' Bi B lei ; Or ceĩ, ceîbā (cetayati pk ceai,*ceYa) cf Jn ceyila 'was awakened' Ass cīyā 'to call' ciyār 'to hint', ciyāri mat 'to call aloud' OB ciye.

(i) MIA āa, āha<OIA ā + consonant + ā : Or ā OB MB āŏ, ā NB Bh ā Ass ā, āŏ (in dissyllabic words) Mai ā Examples : Or tā 'hatching eggs' (tāpa pk tāva) Ass tāŏ, B tā ; Or taṛā (taḍāga pk taḍāga, tāḷaa, talāa) ; sāntarā 'a surnāme' (sāmantarāja-) O Mar sā:vata B sā:trā ; Or bā: (vāma, vāma) B bā: Ass bāŏ ; Or bā 'wind' (vāta pk vāa) Jn vāya OAw bāẽ instr. sg. Mai bāi Aw bayāri Ass bāŏ, B bā, bāĕ, bāo ; Or jhā, ojhā (adhyāpaka pk ajjhāvaa to Turner) OAw ojhāulu Aw B ojhā Ass ojā ; Or khuṛā (kṣudratāta) B khuṛā Ass khurā ; Or pārā (pāravata pk pārāvaa, pārevaa) Mai parabā Ass pāra' B pāyrā ; Or guā (guvāka) B guyā Ass guwā.

(ii) MIA āha : Or kapā (karpāsa pk kappāsa), *sts* bibhā (vivāha) MB bihhā Mai biāha ; Or kaṛhā 'cauldron' (kaṭāha pk kaḍāha) B kaṛā Mai kaṛāhī Bh kaṛāh ; also Or 3p. pronoun -tā(ha)-, the oblique base <OIA tasya>pk tassa> *tāsa, OB tā- 'his' ; Or niā: (nidāgha pk ṇiāha) cp P nigh.

(iii) Group vowel -āa- without contraction : The contact vowel -āa- and with its extension -āā- without contraction or, with length of quantity, (i.e. ā:) are not infrequent. Examples : Or nāā:, 'nā:' (nāman pk ṇāma) Jn nā:va Mai nɔ~ Aw nā:u Bh nā:w~ Ass nāŏ B expletive nā: (ODBL pp 527, 519) ; Or gāā:, gā: 'a village' (grāma pk gāma) Jn gā:va OAw gāũ, gā:wa-hûta (grāmāt) Aw gā:u Mai gā:' Bh gā:w~ Ass ga:ô, gā:w B gā: ; Also Or ghāa / ghā (ghāta pk ghāa) B ghā Bh ghāw Ass ghā, ghāŏ Mai ghāŏ, ghāba ; thaya (sthāgham pk thāha) OAw thāha

Aw thāh OB thāhā MB thāha (ODBL p 505) B thăi, Bh thāh Ass thāuni.

(i) MIA ĭa (<OIA i+consonant+a)> Or. ĭ Ass OB NB i etc. like other eastern languages. Examples : Or pāṇī 'water' (pānīyam pk pāṇia) OB pāṇiā, pānī OMai pānī Mai pāni Jn OAw pāṇī Bh Ass pānī ; Or paṛiśi, paṛośi (prativeśika pk paḍivesia) OB paṛiveṣī OAw paḍavasī Aw Bh parosī Mai paṛosī OGuj pāṛośi ; Or kāhāṇī (kathānikā pk kahāṇaa) OAw kahaṇi Jn kāhāṇī Bh kahanī Mai kahinī B kāhinī ; Or kacheri, kachiri (*kṛtya-gṛha) Bh Mai kacaharī Ass B kāchāri Mai kahacarī ; Similarly, Or aṛhāi (*ardha-trika, ardha-tṛtīya) Or āṅguṭhī (aṅguṣṭhya, *aṅguṣṭhika) katuri 'scissors' (karttarī pk kattarī) śikuḷi, śiṅkuḷi (śṛṅkhala) pituḷi 'idol' (puttalikā) bhāi (bhātṛka pk bhāia) moti (mauktika) rohi 'a kind of fish' (rohitaka) sunṭhi 'dried ginger' (suṇṭhi pk sunṭhi) haḷadi (cf hāridrika) 'turmeric' OOr juāī (MBh G pp 10, 7, 6) Mod Or joī (jāmātṛka) jā:ti (*yantrika) 'betel nut cracker' ; nāti 'grandson' (naptṛka).

The -ika suffix is still found in Oṛiyā, viz, e-guṛika 'all these'.

(ii) Group vowel -ia- without contraction : The cases where -a- is not assimilated with the preceding -i- (in contrast with other languages where contraction or extension of ia> iā with additional ka-suffix took place) are also found. Examples : Or hia / hiyā (*hṛda, hṛdaya pk hiaa) OAw hia Mid Aw hiya OB hiê, hiahi, hia <*hṛdena Jn hiye Bh hiā B hiyā Ass hiyā, hiu 'courage' ; Or ghia (ghṛta pk ghia) OAw ghiu, ghia, ghiê inst. sg, Aw Ass ghiu Bh ghiw Mai ghiu, ghī, ghyū, ghibahi B ghī. The form of Mai shows that neō-Māgadhan form was *ghiWa whence final -u- or -w- or, -b- is derived. Or dia 'lamp' (dīpa pk diva) but extension with -ka-suffix, Jn divā Mid Aw dīā (J) Mai dīā Bh diā B diyā ; Or tia (MBh, SNG p 28) cf OOr tiya (PBG) tiu-ūṇā (MBh) [trika pk tiya] 'third' cf OB tia-dhāu but the extended forms : Jn tijā Bh tiji Mai tīā. Or ṭhiā 'standing' (sthita pk ṭhia) Ass thiya 'perpeudicular' Jn ṭhī 'place' Aw ṭhihā 'reliance' ; also Or jhia 'daughter' (duhitā pk dhidā) B jhī ; puniā (pūrṇimā) ahia (avidhavā) ahya but aï (GBh 28th Ch stanza 13).

(i) MIA ŭa < (OIA u + consonant + a) > OB NB Or Ass Bh Mai Aw -ŭ-. Also MIA uha, uwa Or -ŭ-. Examples : Or ābu 'tumour' (arbuda) B. āb ; Or laṛu (laḍḍuka pk laḍḍua) OAw OMar lāḍu Bh B lāṛu Ass lāru ; Or goru (gorūpa pk *goruva) OAw goru also Jn B Bh Ass etc gōrū Ass garu ; Or nembu, lembu 'lemon' (nimbūka) Mai nebō Bh nībū Ass nemu B nebu ; Similarly, Or paraśu (paraśva cf Skt śvaḥ pā suve, se pk suve, *suva), Kānhu (Kṛṣṇa-uka) bhālu (bhalluka Deś bhallu), genḍu (kanduka pk genḍua), geru 'ochre colour' (gairika pk geria, geruya) chatu (śaktu pk sattua) 'flour of parched pulse' cf B chātu Ass chātu (guri) OAw Mai sātu Bi sattū ; Or chāmu 'in front of' (sammukha pk

saṃmuha); tu 'you'; O. Or. tû (inscr. 1459 A.D) (Ved tuvam pk tumaṃ) Jn tû OB tu OAw tû tû: Mai tõ Bh tu Ass to; Or saṛhu 'wife's sister's husband' (*syālī-voḍhṛ>*sā'ḍhua cf ND p 598). In a solitary example, the final -u- has been turned to an epenthetic vowel,, viz Or bāchuri 'calf' (cf vatsarūpam *vaccharūva>*vācharū) cf Jn vāsarū: Mai Bh bacharū Ass bācharu but B bāchur.

(ii) Group vowel -ua- without contraction: The contraction of -ua- in some cases has not taken place in contrast with other languages where extension with ka-suffix took place, viz Or kua (kūpa pk kūva, kūa) cf OAw kuū: acc. sg.; with extensions; Mai kūā: Ass kû:wā B kuyā; Or rua 'roof frame work with bamboo' (rūpa ? pk rūva) cf OAw bu-rua (virūpa) OB rua, ruva; Or jhua in colloquial Or/jhia (duhitā) possibly after analogy of -pua- 'son' (pota).

The -uha- is usually retained unlike B Ass; viz Or muhā (mukham pk muha) OAw muhā Aw muh OB muha B mu (ODBL p531) Mai mūha Bh mûh Ass muha, but the contraction of -uha- to -u- has already been noted viz Or chāmu (saṁmukha), *see before*.

(i) MIA ea>Or ia; OB ea (=eWa, eYa) NB e Ass eŏ (=ɛŏ) Mai ē Bh ē(w). Examples: Or kiā (ketaka) B keyā; Or diā (deva pk deva) B de MB deyā 'sky, cloud' Ass deŏ OMar deo OAw deu cf Mod Aw *sts* deutā Mid Aw deotanhi 'gods' (J) Mai de; Or khia 'thread wound round' (kṣepa) B khei Ass kheŏ 'throw' cf Bh chêw 'striking down'.

(i) MIA oa > Or ua OB o(W)a B ō Ass Mai Bh ō: Examples; Or ālua (āloka) Mai B ālo; Or pua cf OOr poe (MBh U) [pota pk poa] Ass B pō Mai pōa; Or sua (srotas) 'current'; Or luha<*lua cf O Or loya (SSN p 80) lua (BC p 135 RB p 84) [lotaka] Ass lo Eastern Ass loh.

(B) OIA ā

(i) OIA ā > MIA ā (ā in nom. a in oblique > late MIA a OB.eMB a NB Ass Bh Aw nil, but Or a OMai OAw a Mai -ᵅ- (*schwa*). Examples: Or bāñjha 'barren' (vandhyā pk vañjha) OB bā:jha Jn vāṁjha Mai b.ā:jha Bh B bā:jh Ass bā:j; Or bāga (valgā pk vaggā) OAw Mai bāga Ass B Bh bāg; Or bāta 'news' (vārtā pk vattā) Mai Bh B bāt; Or beḷa 'day time' (velā pk velā) OMar veḷa Mai bēra Aw abēr 'delay' Bh ber; Or bhoka 'hunger' (bubhukṣā pk bu-(b)hukkhā Deś bhukkhā) OAw Mai Mid Aw bhūkha Aw B bhū̃kh OMar bhūka Ass bhok; Or bhika (bhikṣā pk bhikkhā) OAw bhīkha Jn bhīka Aw bhīkh Mai bhīkha, bhīkhi Ass bhikahu Bh bhīkhi B bhikh; Or māḷa 'garland' (mālā pk mālā) Mai māla; Or micha (mithyā pk micchā) OAw micha; Or muda 'seal' (mudrā pk muddā); Or

sañj(h)a (sandhyā, sañjhā) Aw Bh B sā̃jh Ass sā̃:j Jn sām̐jha Mai sā̃:jha ; Or lāja (lajjā pk lajjā) Jn OAw Mai lāja Aw B Ass Bh lāj ; Or saja (sajjā pk sajjā) B Bh Ass sā̃j ; Or śeya, seja (śayyā pk sejjā) Aw B Bh sēj Mai OAw sēja Jn sesa ; Or nāba, nāā (nāva pk ṇāva) O Aw Jn nāva Mai Ass NB nāŏ OB nāvā, nāī (nāvī) NB nā ; Or lāḷa 'spittle', rāḷa 'tar' (lālā pk lālā) Ass B lāl 'saliva' ; Or janha OOr junha 'moonlight' (jyotsnā pk joṇhā) OB johna OAw joṇha Ass jon B jonāki 'fire insect : Or bāna (vanyā) ; Or puniā (pūrṇimā pā puṇṇamā) Jn puniva Mid Mai punima ; also Or parakha 'trial' (parīkṣā) ; Or nida (nidrā pk niddā) cf OB nida, niṃda B nid Jn Mid Mai nīda (Vid.) Mai ninna Ass ninda Bh nīn ; Or nikha, likha 'egg of the louse' (līkṣā pk likkhā) B niki Ass lekhi ; Or dhāra 'edge' (dhārā) duba (dūrvā) jaṛa 'root' (jaṭā) ; Or jibha (jihvā) OAw Jn jībha Aw jībh Bh jībhĭ B jibh Mai jīha Ass jib(h)ā ; Or jaṅgha (jaṅghā) 'thigh', chepa 'spittle' (śleṣmā) gonda 'gum' (gundrā) B gā̃d ; kheḷa (krīḍā) khaṭa (khaṭvā pk khaṭṭā) OB khāṭa also in OAw, Mai ; B Ass khāṭ ; Or ahia, ahya (avidhavā) O Or aï (GBh) OMar aheva Mai aihaba, MB āiha B eyo.

(ii) The loss of final -ā- by assmilitation in the following combinations is usual with the Eastern languages :

(a) OIA ā, a+consonant+ā>Late MIA āā, aā, āa, ā

(b) OIA ikā>MIA iā, ia

(c) OIA ukā, upā etc>MIA uā

But in many cases Oṛiyā has retained the unassimilated -ā- in the final positions. The cases of Oṛiyā final -ẵā, iẵ, uẵ- etc. will be treated under 'Vowels in Contact'.

(C) OIA i, ī

(i) OIA ĭ> Late MIA i> Or i OB i MB epenthetic i NB nil. In Bh, final i, ī are half pronounced as -ĭ- in the dialets of Ballia, but in the dialects of Benares, they are elided. Mai -ⁱ- of *schwa* value. Aw whispered i and sometimes nil. Ass i. Examples : Or diṭhi (dṛṣṭi pk diṭṭhi) Jn diṭhī OB diṭhẵ, MB diṭhi (ODBL p504) Mai dīṭhi, ḍīṭhi Bh diṭhĭ cf Ass diṭhak, ḍiṭhak 'waking state' ; Or tisi (atasī) Ass B Bi tisi ; Or tini (trīṇi pk tiṇṇi) OB tini, tiṇi, tinā B tin Jn tīna OMai tĭ̃ni, tinu, tīnihu, tinuha Mai tīni OAw tīni, tīna Aw tīni, tīn Bh Ass tini ; Or cāri OOr ciyāri (inscr. A.D. 1384) [*catāri, catvāraḥ Ap cāri] Bh Jn Ass cāri OMai cāri, cāriu, cārihu, cāruhu Mai cāri Mid Aw cāriu (J), cāra, cāri(N) Aw B cār ; Or ganṭhi (granthi pk ganṭhi) Jn gām̐ṭ(h)i, gāṭhi Mid Aw gā̃·ṭhi (J) Aw gāṭhi Ass gā̃:ṭhi, gunṭhi Mid Mai gā̃:ṭhi (Vid) Mai gĕ̃ṭha, gā̃:ṭha Bh gā̃:ṭhi B gā̃:ṭ, gĕ̃ṭ ; Or kichi but kichu (NC) 'something' (kiñcid cf kaścid Aś kim̐chi, kichi) OAw B Bh Ass kichu Mai kicchu 'a little'.

The final -i- is found none in Nep H Braj P L; Or kahuṇi 'elbow' (kaphoṇi pk kuhiṇi) Mai kehunī B kanui; Or ākhi sometimes written in MBh: Śāralādāsa and elsewhere as *ākṣi* and also *āchi* as in mṛgāchi (UBh p 43) [akṣi pk akkhi, acchi] OAw ā̃:khi Aw ā̃:khī Bh ā̃:kh, ā̃:khi Ass ākhi B ā̃:kh(i) OB ākhi OMai ā̃:ṣi Mai ā̃:khi; Or āñjuḷī (añjali pk añjali) Jn āṁjuli Mai ā̃:jura Ass ā̃:jali Bh ā̃jurī B ā̃:jlā 'handful'; Or beni 'twofold' (*dvini pk beṇṇi) OB beṇi Jn dona, doni Mid Mai beṇṇa; Or panti 'row' (paṅkti pk pantī) Jn pāṁti Aw pā̃:tī Mid Mai pāti (Vid) Mai pā̃:tī Ass pā̃:ti, pā̃:t, pānti Bh B pā̃:ti; Or ṣāṭhi '60' (ṣaṣṭhi- pk saṭṭhi) Mid Aw sāṭha Aw sāṭhi Mai sāṭhā, sāṭhi, Bh sāṭhī dial. sāṭh Ass sāṭhi B ṣāṭ dial. ṣāiṭh; Or aśi (aśiti pk asīi) Ass B āśi Aw assī Bh asī (Dt. Ballia), assī; Or binati 'prayer' (vijñapti pk viṇṇatti) Jn vinatī Aw bintī Mai binatī Mai minatī also in B Ass Bh beside binati in Ass Bh; Or sindhi 'hole in wall' (saṁdhi pk saṁdhi) Ass sā̃:dhi 'joint', sindhi 'hole made by thieves' OB sā̃:dhi, sāndhi B sīdh Aw sẽdhi Mai sonhi Bh senhi; Or saturi (saptati) B sattar (sottor) etc.

(ii) In some cases final -i- is seen to be modified to -a- in Oṛiyā like Maithilī, viz. Or jhālara (jhallarī pk jhallarī) B jhāla'r 'fringe' Bh jhālari 'lace end'; Or paṇḍā (paṇḍita pk paṇḍia) OAw pāṇḍe Aw paṇḍā OB paṇḍiācāe MB pāṇḍiā Mai B Bh pā̃ṛe Ass pāṇḍā *sts* pā̃ṛit; Or pāśa 'by the side' (<*pāśi <pārśve), muṭhā, muṭhi (*muṣṭhika) thaṇṭa (troṭi) etc.

(iii) OIA ĭ> MIA ĭ> i is retained when occurs after a vowel in Oṛiyā and other eastern languages. viz, Or jõyāi (MBh) juāī, joī (jāmātṛka) naī (nadī) O Or karai, karei (inscr. 15th c. A.D.) [karoti] jāṇai, jāṇei (insc. 15th c. A. D.) [jānāti], baṛhāi, baṛhei 'carpenter' (vardhaki-) dui (dvi pk duvi) gāī (gābhī) sā̃ī (svāmin) bhuĩ (bhūmi) deī (devī) O Or puĩ 'rotten' (pūti, BGi) Or pui "bad smell" O Or phāi 'big, much' (sphāti pk phāi, phāya) [CM iv, p 11]

(iv) In Oṛiyā, a vowel+h+ i is tolerated as opposed to Bengali and Assamese; but the modern tendency in Or is to elide that -h-: viz ahia (avidhavā) OMar aheva Mai aihaba, ahibāta (avidhavātva) Aw auhāt B eyo MB āiha; Or pahiyā 'wheel' (pradhi-) pahilā 'first' (Ap pahila cf Skt prathama) OB pahila B paylā; Or dahi (dadhi) B Ass dai; Or sahi (sakhi) B sai; Or nāhi, lāhi (nābhi) B nāi; Or nāhi 'was not' (nāsīt) cf B nāi, nei.

(D) OIA u, ū

(i) OIA ŭ> MIA ŭ > Late MIA u Or u Aw u, beside whispered -u- Mai -ᵘ- of *schwa* value Ass u OB u MB epenthetic u. NB nil Bh u (rarely) and nil. Examples: Or śāśu (śvaśrū pk sassu) Ass sāhu B śāś-in compds. Mai OAw OB Bh sāsu; Or phagu 'red powder' (phalgu pk phaggu) B phāg Ass phāku; Or dādu, yādu 'ringworm' (dadrū, dardū pk daddu) B Bh dād; Or jāmu 'a fruit' (jambu pk jambū) Aw jamunī Bh jāmuni Ass jāmu but jām (to Kakati : FA) B jām Mai jāmu; Or ākhu (ikṣu pk

ucchu, ikkhu) Jn usa Aw ū:kh Mid Aw ū:kha (J) Mai ūkha, uikha Ass kuhihār, kũhiyār B ākh ; Or cañcu 'beak' (cañcu pk cañcū Deś cuṁculī) Jn cāṁcũ Mai cancu Aw B Bh cõc 'scrapings' Ass coñca 'the skin of snake' also cõc 'scrapings' ; Or ḍamaru (ḍamaru, an Austro-Asiatic word pk ḍamaru O Or ḍāmāḷu (MBh) Mai ḍāmaru Jn ḍaura Ass ḍambaru OB ḍamaru.

(ii) Sometimes OIA MIA final -u- becomes Oṛiyā -a- : viz, Or guguḷa 'a fragrant gum' (gulgulu, guggulu pk guggulaṃ) ; Or bāha OOr. caübāha (MBh U p20) bāha (MBh U p 31, B p 10) [bāhu pk bāhu, bāhā f] OAw bāha OMai bā:ha, bā:hū Mai bā:hī Jn bāhe 'arms' Ass bāhu, bāusi but to Kakati bāu 'border of a weaker basket' Bh bā:hī MB bāha (ODBL p513) Bi bā:hū 'bangle' ; Or mūcha (śmaśru pk mhacchu) Aw mōch, mõch Mai mōcha, mõcha Bh mõch, mõchi B mōch.

(iii) OIA ŭ> MIA ŭ> u is retained when it occurs after a vowel in Oṛiyā and other estern languages : viz, jhāû (jhāvu) lāu(alābu) āu (api) bou beside bohu (vadhū) kau (kavayī) 'fish' B kai.

(iv) In Oṛiyā, a vowel + h + u is tolerated as opposed to B and Ass though the modern tendency of Or is to elide it. Examples : Or kahuṇi (kaphoṇi) bohū (vadhū) mahu (madhu) mahuri (madhukārika) pahuñcibā (pra-ghuñca-) muhā (mukha) etc.

(v) Sometimes OIA and MIA u becomes -i- in few *sts* words in Oṛiyā as well as in other eastern languages, usually when -y- precedes -u- ; thus Or bāi (also in BSAS) [vāyu] Mai B bāi ; OOr āisa 'long life' (inscr. 15th c. EOLS, 21/11) beside āuśa (inscr. 13th c. *vide* EOLS, 1/27-28) [āyuṣ-]; OOr aibrata, aïbrata beside ayubrata (NC p 49, MBh B. 88, 94, N. 15) [for ayuta, ayutāvarta ?].

(E) OIA MIA ē

OIA aḥ, aṃ, ē> MIA (Mg.) ē> Mg Ap *i> nil in all the eastern languages.

The affixes for nominative and locative singular of -a- stem resulted into *-i- in Mg. Ap. But the affix of nominative singular -e-> -i- is still found in Oṛiyā as much as in Old Bengali, Middle Bengali and early Maithilī. The retention is strengthened by the addition of -akaḥ affix or inst. sg.-ena even in OIA stage as may be seen from OIA devaḥ> MIA (Mg) deve>*deWi and devena> MIA devenaṁ> devẽ and devakaḥ> devae> *devai> deve. To refer to the -e- ending of Oṛiyā in Nom. Sg. let us quote the example given by Dr. Chatterji (ODBL p 741) : *uttama-kumāre......upujilā* 'Prince Uttama was born' (Dhruva Carita), '*bicāra nāśa karibāre, eta nohai subicāre* 'you think of killing, this is not justice' (Jaga-nnātha Dāsa). Though such uses become rare, but still -e- ending is used to denote the indefinite sense as in Bengali, viz. Or *jaṇe kahilā* 'one (of them) said', cf also use of -poe- (MBh U p3 Sl. p 22, N p8) and -pue-

(MBh Sl p22), Or *kāhī baṇa pārāe uṛanti caupāśa* "Somewhere the wild pigeons are flying round" (DR) where -e- is added to pārā (pārāvata) to denote indefinite sense.

There might be some influences of Skt eka (for example janaika= Or jaṇe) MIA ea> Or -e-, for instance Or goṭi-e beside goṭe for goṭi-eka, cf also e-guṛika 'these all', koṛie (also in MBh koṭi-eka) etc.

The use of -eka- with noun substantive is frequent in early Oṛiyā. We do not know how far this might have played a role in the formation of MIA *-kka suffix, though the -ka- suffix was not unknown in OIA (cf vālaka, padātika etc.).

The retention of -e- in Oṛiyā in Nom. sg. may be subject to another influence of personal pronouns. Early Or āmbhe, tumbhe are still preserved with the final -e viz āme, tome, tame 'we, you' in contradistinction to B āmi, tumi 'I, you' cf Mai hamme, tõhe OB ahme, amhe OAw amhe, amhei.

The affix -e-in locative is frequent in Oṛiyā. There is further extension with the post-positional affixes viz re, te etc. The instrumental sg. -ena> pk enaṃ >eṃ> ẽ has also been preserved. The nasalized -ẽ- is found in Śāralādāsa : līḷẽ (līlayā) cf OB līle, līlẽ.

The final -aya in OIA is also frequent in early Oṛiyā *sts* words viz. ude (udaya) OMar udo ; Or āḷe (ālaya) OMar āḷẽ ; Or āśre (āśraya) OMai aśraye, aśrae OMar āśro. (*see supra*).

There are however, cases where final -e has become -a in Oṛiyā by the side of Mai -a when the loss of OIA ē> Early NIA i in the locative is found in Bengali, Assamese and Bhojpurī ; Examples : B Bh Ass āś-pāś (Skt āśre pārśve cf Bloch : LM p 57) Mai āsa pāsa Or pāśa. The qualitative change of final -i to -a possibly is a secondary development and has been discussed already.

The examples are given below where MIA -e- is retained as -i- in Or. Examples : Or āji (adya, adye Mg pkt ajjiṁ) OMar OB Ass āji B Aw Bh āj Mai āju, āja also Bh āji ; Or majhi 'in the middle' (madhye) OB mājhê, mājha B mājh OAw mā:jha, mā:jhā, mājha Jn māji Mai mājha mā:jha Mid Mai mā:jha Bh mā:jh Ass māj ; Or kāli (kalyam, kalye pk kallaṁ, kalhiṁ) Mai kālhi Bh B kāl Ass kāli Aw kāli, kālhi ; O Or māṇuṣī, 'a man' (MBh B p 102) Mod Or maṇiṣa (manuṣya, mānuṣa) OAw maṇusu Jn māṇusa Mai manūsa, manasā, manusa Bh B mānus Ass mānuha ; Or piṭhi 'back' (pṛṣṭha pk piṭṭhi but to Turner pṛṣṭi-) OAw piṭhi, pīthī loc, sg. Jn pāṭhi Mid Mai piṭhi (Vid.) Mai pīṭha, pīṭhi Bh pīṭhi Ass piṭhi B piṭh. ; O Or māsi (māse, PP 8th ch) 'in month' O Or rumi (MBh K p 6) [roman pk roma, loma] OMai rõa Mai roiā:, Jn lova Aw rõwā: Bh rõā: Ass nom B rõ ; Or puṇi 'again' (punaḥ) OB puṇa, puṇu OMar puṇa, puṇu Mai phenu ; O Or śiṣi 'pupil' (śiṣya pk sissa) OB sīsa, sīsā OAw sīsa ;

Or bāhiri 'outside' (cf skt bahiḥ, vāhya pk bāhiraa) Jn bāhari Bh bāhar, bahari: Mai bāhara Ass B bāhir; Or panāi 'sandal' (upānah, *pāṇaḥ pā upāhanā pk uvāṇahā) Jn vāhāṇā Bh panahī Mai panahī MB pānai dial. B pānā Ass pānai; Or bhāṇiji 'sister's son' (bhāgineyaḥ pā bhāginiyyo pk bhāinejja, bhāiṇijja); Or agi 'frontal' (agre, agreṇa) etc.

(F) MIA ō

OIA aḥ, aṃ> MIA ō > Mg. Ap *u : OIA MIA ō was extremely rare in Māgadhī and Mg. Ap -ō->*-u-. Even -ō- does not occur in the base form of any OIA word, any more than -ē-. In Oṛiyā there are few instances where Mg. Ap *-u- is preserved. In Oṛiyā, ablative sg suffix -u- is probably derived from OIA -tas MIA to, ō as in pkt *gharado> *gharao> Mg. Ap *gharau> Or gharu 'from the house'. The contraction of -au- to -u- is common to Bengali and Bh Mai; for examples, OIA karotu, *karatu> pk karau> Or karu 'let him do' OB karaũ also in MB; B karu-k Ass karo-k cf Bh calũ, karũ, dekhũ etc. in conditional sense. Similarly, the ablative ending of postpositional nature viz. Or ṭhaũ and ṭhũ is derived from OIA sthāma> pk ṭhāva,> *ṭhāY~a, ṭhāW~a Ap ṭhāu> *ṭhaũ; cf also Mai ṭhɔ~ etc. In the same way, the postpositional dative-cum-indirect object -ku- is derived from OIA kṛtaḥ> pk kao> *kau> ku (cf Bh I : Sen p 120).

The similar development should also be noted in the following examples; Or taḷu 'at the bottom' (talakaḥ> talao> *talau); Or kuā beside kāu (kākaḥ> kāko> kāo> kāu); Or sabu 'all' (sarva pk savva); Or ehu beside ehā (eṣaḥ> pk eso> Ap eho) OB eha ehu B ei, e Mid Aw ehi (J) Aw iu Ass ehi; O Or mehu (megha, RBh. UBh p 60, RB p 51) rahu (ratha RM 12th ch, RBh etc.).

CHAPTER II

VOWELS IN INITIAL SYLLABLES

The eastern languages have retained the initial syllables in general. Where there are changes, there they are inherited from the Middle Indo-Aryan stage. Thus to summarise,

(i) Apheresis is common to all the eastern languages, but usually the history of the forms goes back to MIA.

(ii) Shortening due to the shift of stress, of the expected long vowels, original or derivative as compensatory lengthening, is a neo-Māgadhan characteristic ; and this is much in practice in all the eastern languages except modern Bengali and to some extent Assamese. Maithilī goes even so far as to retain the double consonant as the alternative practice ; cf Mai cāka : cakkā (cakra) ; Ass bātari : batarā 'news' (vārtā) ; Or kāpaṛa : kapaṛā (karpaṭa).

(iii) The MIA feature of lowering -ě, ŏ- <OIA i, u is preserved in some inherited forms in all the eastern languages. Oṛiyā has further developed this tendency.

(iv) In spite of the general tendency of preserving the initials, we do come across some exceptions having qualitative change ; but still they are inherited from MIA source. Oṛiyā has some additional examples of such changes, but they are possibly origanated in proto-Oṛiyā stage.

(v) Vowel Harmony is a new tendency found in Bengali, Assamese and Oṛiyā.

(vi) Labial colouration of initial vowel is an MIA phenomenon and seems to be developing in modern languages extensively.

In contrast with the eastern languages, Oṛiyā shows the following peculiarities :

(i) The initial OIA vowel plus two consonants has not resulted into long vowel plus one consonant after compensation, when the shift of accent takes place. Similar is the case with nasal conjunct preceded by vowel. The forms with lengthened initial derived from OIA short vowel plus single consonant are rare in Oṛiyā and perhaps they are either loans from proto-Bengali, or simply infected.

(ii) The simplification of nasal conjunct does not yield to nasalization of the preceding vowel unlike B Ass Bh Aw Mai ; but forms with lengthened vowel before nasal conjunct (cf Or dānta for danta etc) and the cases of pure nasalization though with short vowel before simplified consonant (cf Or ā̃ta <antra) confirm the theory of reduced nasal (i.e. dā̃:^{n}ta for dānta etc).

(iii) The further extension of the associative influences of the labials and r, s, h and n. The influence is effected even in the medial position.

(iv) OIA i, u before double consonants became MIA ĕ, ŏ sporadically and they are preseved in Oṛiyā like the other eastern languages; but sometimes, MIA i, u have become -e, o- in Oṛiyā.

(v) Late MIA iu> Or u perhaps through *yu which is singularly an Oṛiyā feature.

(vi) The modern tendency of Oṛiyā to turn -e, o, u- to -a- is also to be noticed.

(vii) Initial e, o> i, u in Oṛiyā in many forms.

(viii) The qualitative changes of u> i or i>u or a> i, e etc in some forms do not conform to those of the eastern languages.

CHANGES OF VOWELS IN INITIAL SYLLABLES

Apheresis: Loss of initial vowels through absence of stress. Apheresis is the dropping of initial vowels and syllables for want of stress, the history of which goes back even to OIA. The following represents a few of the inherited and borrowed elements:

(i) OIA a: Examples: tisi (atasī) also in Ass B Bh Mai; lāu (alābu) B Ass lāu Bh laukī; Or riṭhā 'soapnut' (ariṣṭa pk ariṭṭha, riṭṭha) also in B Bh; Mai riṭṭhī, riṭṭthā; Or pindhibā 'to wear' (apinaddha- pk piṇadhha, piṇaddhai) MB Ass pindh; Or bhijibā 'to get wet' (cf abhyañjati) also in Jn Aw Mai Bh Ass B. Or bhitara (abhyantara, *abhiy-antara pā abbhantara pk abbhintara) also in Jn Aw Mai Bh B Ass. Or bi 'also' (api) O Or *ts* kṣauṇī for akṣauhiṇī (MBh, BGi etc.), *ts* khiḷa for akhila (Rasakulyā cautiśā) naṅga for anaṅga (RM p 84).

(ii) OIA ā, lost initially is not found in Oṛiyā as in B Bh Mai.

(iii) OIA i, lost initially is not found in Or. words. The following example is an instance of loss of a syllable: Or ḍhilā 'slack' (śithila <*śṛthira pā sithila, saṭhilo pk siḍhila, saḍhila also pk ḍhilla Deś ḍhella 'poor') also in Bh Jn Mai Ass B.

(iv) OIA u: Examples: Or basibā 'to sit' (cf upaviśati pk uvaisai but Turner connects it with Skt vasati) also √bas- in B Ass but √bais- in dial B OMar OAw OMai Mai Bh; Or ḍimiri 'fig' (udumbara pā udumbaro pk umbara—an Austro-Asiatic word) Mai ḍummari Bh ḍūmarī B ḍumur Ass ḍimaru; Or panāi beside OOr pāṇḍhoi (MBh Md) [cf upānah pā upāhanā pk uvāṇahā, pāṇahā) cf Jn vāhāṇā Bh Mai panahī dial B pānā Ass MB pānai; Or baiṭhā 'lamp' (connected with upaviṣṭa- pk uvaiṭṭha ?) cf Jn baiṭhā Bh Aw dial B baiṭh, Mai bæṭha 'to sit'.

(v) OIA ē, ō: OOr hena 'such' (*etādṛśana Ap *aihaṇa UBh, RBR) cp B ehena. A solitary example in Bh and B rêṛi and reṛi respectively is not fruitful in other branches, viz. Or eraṇḍa (*ts* ?) Mai ãraṛī Ass eṛā.

The loss of -ō- is found in Oṛiyā, Mai, B ojhā beside jhā cf OAw ojhāulu (upadhyāya if not from adhyāyī acc. to Turner).

The loss of initial vowel is traceable in Or. compound tense viz. karuchi beside karu achi, karichi beside kari achi "I am doing, I have done" etc.

(A) INITIAL -a- & -a- IN THE INITIAL SYLLABLES

(i) OIA and MIA a in initial syllables, followed by two consonants> ā in Oṛiyā like other eastern languages. Examples: hātī (hastin) bhāta (bhakta) kāma (karman) āji (adya) kāli (kalya) kāna (karṇa) pāna 'betel leaf' (parṇa) āpe 'by self' (ātman) āṛa-bāyā cf B āṛ-bujho 'who does not understand the straight way' (ardha- ?, budhya-) kāhi 'where' kāhī kāhī 'somewhere' (kasmin) tātilā as in *tātilā luha* 'red-hot iron' (tapta-) mācha but OOr macha (inscr. EOLS, BNG 9th ch. (matsya) kāhā- as in *kāhā sahita* 'with whom' (kasya pk kassa> *kāsa> kāha) kāṛhibā 'to snatch' (√kṛṣ, pk kaḍḍh) pāṭi 'mouth' (paṃkti) cāpuṛā (carpaṭa) sāpuā 'snake-catcher' (sarpa-, uka) chāṛibā (chard-) ṣāṭie (ṣaṣṭi-) āṭha, āṭuṭā (aṣṭa-) bāṭa (vartman) pākha 'way' (pakṣa) pākhurā (pakṣma-) ḍāhāṇa 'right side' (dakṣiṇa) kāduā (kardama) ākhi OOr ākṣi (MBh) [akṣi] ākhaṛā 'wrestling ground' (akṣavāṭa) āṇṭhu 'knee' (asthivant, asthivantau ? pā aṭṭhi) B. hā:ṭu MB ā:ṭu (Caṇḍīmaṅgala by Mādhavācārya) Ass ā.ṭhu; Or pāliṅki 'litter' (paryaṅkikā), pālaṭibā 'to change' (paryasta) pāṛibā 'to break wind backwards' (cf pardate) B pādā Ass pāda-; Or pācibā (cf pacyate pā paccati 'is boiled') Ass paciba, B pacā 'to rot'; cālibā 'to move' (cf cālyate) B Ass calā OMar cālaṇê ; Or māgibā (mārgaya-) nācibā (nṛtya-); Or jāmu 'a fruit' (jambu) B jām; Ass jāmu.

(ii) Sometimes the -a- in initial syllable followed by two consonants in MIA does not become -ā- as a compensatory lengthening when one consonant is dropped in NIA. This is due to non-initial stress and the examples are best seen in the *Caryāpadas* and in Sarvānanda's TS where the loss of length is found in words more than two syllables with a strong or stressed penultimate or antepenultimate generally (cf ODBL pp 316-317).

In early Oṛiyā the non-initial stress-cum-absence of lengthening was a general employment; and usually the stressed vowels were lengthened in quantity. But there are some words now consisting of all short vowels—uaually dissyllabic or trisyllabic—where the stressed vowels remain short instead of being lengthened if one of the double consonants of MIA is not dropped. For examples Or cama for ca^{m}ma, (carma-) gadha for ga^{d}dha (gardabha) ca^{k}ka (cakra) ga^{c}cha (*gaśca, gaccha 'a tree') pa^{t}thara (prastara) etc. where the long consonants are not shown in orthography. Here Oṛiyā is paralleled with Maithilī. For, in both the languages, forms

with the long vowel ā, and those with a long consonant preceded by the short vowel -a- occur side by side (FM ff 34). Examples: Or kapā 'cotton' (karpāsa, an Austro-Asiatic word pk kappāsa) OB kapāsu, kapāsa B kāpās Jn kāpuseṁ inst. sg. Mai kapāsa, kappasa Bh kapāsī Ass kapāh; Or katurī 'scissors' also katuribā (karttari- pk kattarī) B kāturī also Or B kāti Jn kātari Mai kātī, kattā; Or kapūra (karpūra pk kappūra) 'camphor' OB kāpūra B kapur, coll. standard *sts* koppur Jn kāpura Bh Aw kapūr Ass kāphur; Or kamāra (Ved kammāra- Skt karmakāra pk kammāraa) OAw kamāra Jn kāmāriṁ, kamārī Mai kamāra Ass kamār B kāmār; Or ajā 'mother's father" (ārya pā ayyako pk ajjaa) Jn ājena inst. sg. Bh Aw ājā OB ājadeva (āryadeva) B ājimā (aryikāmātā *vide* ODBL p476) Ass āj 'simple, artless'; Or andhāra (andhakāra pk andhāra, andhaāra) OB andhārī B ā:dhār OMai andhārī Mai anhāra OAw ādhārī Aw anhārī (Eastern) Jn āṁdhāra Ass āndhār, endhār Bh anhār; simlarly, Or kaṇṭā (kaṇṭaka pk kaṇṭaa), kambaḷa (kambala) OB kāmali OAw kā:bala Jn kāṁbala Ass kāmali; OOr kacha (BNG 9th ch.), kachapa (Puri insc. EOLS) Mod. Or kaïcha 'tortoise' (Skt kacchapa) Jn kāsavi f. Mai kāchu Ass kācha B kāchim; OOr Kanāuja [MBh etc.] (Kānyakubjam pk kaṇṇaujja) kaṭāri 'knife' (kaṭṭāra) kac(h)eri, kac(h)iri (*kṛtya-gṛha) Or aṭā 'flour' (aṭṭam<*arta), aṭhacāḷiśa '48' (aṣṭa-catvāriṁśat) aṭe 'is' (vartate ? pk vaṭṭai 'exists') adā 'ginger' (ārdrakam) aṛhei, aṛhāi (ardhatṛtīya, ardha-trika) adha (ardha) aṭhara (aṣṭādaśa), anturī, ātaṛa (antaḥkuṭa to Bloch, *antra-puṭikā to S. Sen) aṅgaṭhā 'fire place' (agniṣṭhikā) OOr achai (inscr. EOLS) Mod Or achi 'is' (*acchati<IE es-sk'e-ti, but to Turner ākṣeti 'dwells'). Or kaṅkaṛā (karkaṭa) satāiśa (saptaviṃśati) bachā (vatsa) cama (carma) phagu (phalgu) 'red-powder', majhi (madhya-) cakuḷi 'slice' (cakra-la) gacha (*gaśca) batāibā 'to tell' (cf vārtā) gadha (gardabha) bakhāṇibā 'to narrate' (cf vyākhyāna-) bañcibā 'to save' B bā:cā (vañc-), Kānhu but Kanhāi (Kṛṣṇa-) tamākhu (tāmrakūṭa) saja 'dress' beside OOr sāja (MBb, sajjā) pacha (paśca-) Or agi 'frontal' but āga (agra) caka (cakra) pathara (prastara) sabu (sarva-) B sab; Or ḍāka but ḍakāibā (ḍakka ?) āṛa 'side (ardha) cabiśa but OOr cābiśa (MBh U. p 89) [caturviṁśati] Or khajura (kharjūra) khamāra (*skambha-gṛha) bhala 'good' (bhadra) rakhibā 'to keep' (rakṣ-) phaguṇa (phālguna) etc.

(iii) In OIA MIA -a-+nasal conjunct, usually the nasal is reduced to mere nasalization of the lengthened -ā- with the following consonant remaining. This is best found in Bh B Ass Mai and Aw. But in Oṛiyā, the nasal remains with the group without lengthened -ā-; yet cases are not rare where the lengthened -ā- is found and possibly with reduced nasal in earlier stage, but now with the fully introduced class nasal.

(a) Cases where initial vowel is lengthened: Or āṅguṭhi 'ring' (aṅguṣṭhya) pāñca (pañca) kāñca (kāca) āṇṭhu (asthivant ?) dānta (danta)

kāndaṇā (krandana) āmba (āmra pk amba) Kāṇhu (Kṛṣṇa) sāṅge (saṅga-) 'with' bāñj(h)a 'barren' (vandhyā) bāũśa (vaṁśa) āṅguḷi (aṅguli) āñjuḷi OOr āñjali (MBh U p38) āmbiḷa (amla) 'acidity', āñcaḷa (añcala) āṅgaṇa also agaṇā (aṅgana) āṅga (aṅga) āṅka (aṅka) āṅkuri (aṅkura) kāṅkaṇa (kaṅkana) kāndha (skandha) cānda (candra) cānduā (candrātapa) 'canopy', cāṇḍāḷa (caṇḍāla) OOr āṅguḷa (MBh U p80 also SS), āṅguḷi (MBh Ai. p 6) beside aṅguḷi, aṅguḷa (MBh U p31, 49) [aṅgula] etc.

(b) Cases of nasalization of the preceding vowel: Or āûsibā 'to comb' (aṅkuśa ? but perh √aṁś, aṁśayati 'divides') ātara, āta (antaḥkuṭa to Bloch, 'antrapuṭikā to Sen, antra) bāûsa (vaṁśa) 'bamboo', haûsa (haṁsa) aāḷā (āmalaka) OOr aêḷā (MBh U); Or aîṭhā (āmṛṣṭa) etc.

(c) Cases of nasal conjunct with no compensatory lengthening: Or raṅga (raṅga) 'red' B raṅ; panti (paṅkti) B pā.ti; tantī (tantrika) B tā:ti; Or sañjha (sandhyā) B sā:jh; ganṭhi (granthi-) B gā:ṭh etc.

The examples clearly show that in proto-Oṛiyā stage, Oṛiyā followed the general trend of having nasalized -ā- with a following consonant; but, in late stage, the length was lost for non-initial accent as with the other consonant groups and the class nasal was supplied in favour of the reduced nasal. (compare Mod Or aîṭhā beside ainṭhā (āmṛṣṭa), gaîṭhāḷa beside gainṭhāḷa (granthi—) etc.

(iv) OIA MIA a followed by a single consonant seems to have become -ā- through initial stress. The tendency is prominent in eMB stage of Bengali. In Oṛiyā it is rare. The following shows some of the instances:

O Or ābara, āūra (Puri insc. EOLS) Mod Or āhuri (apara pk avara) O Aw āwara Mid Aw aur also in Mod Aw, OMai ăora, ăwara eMai aru Mai āra, ɔra, ōra, āora OB avara Mid B āyara B ār Bh āwaru, aurī Ass āru, ār; Or pāî 'for' (prati pk pai if not from Skt tmā cf Turner ND p371) cf Nep tapāî, mapāî 'myself'; Or āu 'and' (api) Aw uahu Mid Aw ōhī (J) O Mai ɔ (<au), au, u, o, ao; Or pāhācaru 'from slip of feet' (pādacara ?) cf B pichal; pāhānti, pāhāntā 'daybreak', pāhila (cf prabhāta) Ass pohar 'bright', puwā 'morning' OB pohāili cf Jn pāhāṭa 'dawn' Nep păhār 'sunshine; Or yāā:ḷā 'twins' OOr yamaḷā (yamalau pk jamala or from yāmalam 'pair') Or hālukā 'light' (laghu-ka pk lahua, halua with extension of -kka, if not from lāghava cf ODBL p 633, but J. Bl suggested a Dravidian source) OAw halua OMar haḷu Jn halu Mai halluka Bh haluk, halkā Ass hāluk 'weak' B hālkā; Or ācambit 'astonished' also in B (√skabh cf pā chambheti *vide* Turner ND)—no lengthening in Nep H G P M. Or sābata but cf sautuṇī f. (sapatnī) B sat etc.; kāhāṇī (kathānikā) māhunta (mahāmātra) B māhut; Or māhāṅgā (mahārghya) O Or cābiśa (MBh U p89) [caturviṁśati] etc.

(v) Consonant+a+consonant: The -a- remains usually like other

eastern languages. Examples : Or paṛhibā 'to read' (paṭha-) bhaüṇī'sister' O Or bhaeṇī, bhayeṇī (BA, RM p 40) bhaïṇī (JC) [bhaginī] paṛibā (pat-) pahilā 'first' (cf prathama pk pahillaa) maribā 'to die' (cf *marati, mriyate) dharibā (dhar-) 'to hold', naībā 'to bend' (cf namati) paḷāibā, paḷāe (palāyate) etc.

(vi) Initial -a- associated with p, b, m,—the labial sounds, is found to be mutated to -o- in Oṛiyā, Bengali, Assamese and Maithilī. In Maithilī, this initial -a- is turned to -o- or it becomes the central vowels ä, ə,or ɒ(=ä). In Oṛiyā, the tendency is seen to be extended even with the sounds s, h. Examples : Or juāṇī (yamānikā) B joyān, juān, jon Ass (ā)jani ; Or joī, juāī O Or juāī (MBh) [jāmātṛka] cobāibā 'to chew' (carv- pk cavvia 'chewed') cf O Aw cabā Mai cibæba, cābhaba Bh cabā B cibāna, dial. cābāna but Ass cobā ; Or pohaḷā 'coral' (pravāla- pk pavāla) Mid Mai pobāra Mai poāra, pwāra MB powā:ra Ass powāl but B palā 'red coral' ; Or bojha 'load' (vahya- pk vojjha) Jn vojhe Mai bōjha Ass bojā B Bh bōjhā ; Or boṛi 'pill' (vaṭikā pk vaḍī) B boṛi, written baṛi Ass barī OB baḍiā ; Or boita 'boat' OOr bohita (JC, CM i, p. 31) [vahitram] Ass ba'ṭhā B baiṭhā, baṭhā, boṭhe Mid B buhita, bohita (ODBL p. 502) ; Or ghoṭibā 'to mix, to stir' (ghṛṣṭa-) cf OB ghāṇṭi compare Or *goḷei ghāṇṭibā*, B ghõṭā, ghûṭā, ghā:ṭā, ghĩṭā (ODBL p 463) Ass ghā:ṭ, ghõṭ Jn ghõṭa 'mouthful of liquid', ghõṭne 'to swallow' Mai ghôṭa ; Or bohibā 'to flow' (cf vahati pk vahai) B bahā ; Or bohū, bou (vadhū pk vahū) OAw bahu Mai bāhu Bh bahū Ass bau B bau (=bou) ; Or bolibā also in B Aw Bh Ass etc. (brū, vad ? or√valh *vide* OMR : Tulpule p 228) ; Or bokaṭe 'bad' also OMar vokhaṭe B bakhāṭe (vakra ? or √vah,+akka) OOr soriṣā (MBh SI p 28) Mod Or soriṣa 'the mustard' (sarṣapa pk sarisava, *sassapa) OAw sarisawa Mai sariso Bh sariso, sarso but B sorṣe, written sarṣe, sariṣā ; Or notha (nastā) Mai nātha B nath 'an ear-ring' ; Or roṣei, roṣāi-ghar 'cooking', 'kitchen' (rasavatī pk rasavaī) OAw rasoi Aw rasōī 'kitchen' Jn rasoye 'food' B rasui (=rosui) ; Or ghoṣāṛibā 'to rub' (ghṛṣ) but Jn ghasaṇī 'friction' Mai ghasāba, ghasāni B ghasā Ass ghāh Bh ghās, ghas ; OOr nohe ~~(K. Koili~~, ChG etc.) beside nuhai, nohai, (BSAS, RM p 71 etc.) Mod Or nuhe 'is not' but nahai (2 times in BSAS, ChG) nahe (NC p 20) [na-asati, a subjn. of √as] OMar navhe, nohe but B nay ; also Or mũ O Or muiṃ (inscr.) muî, muhî (PG p.2) [*may'ena] OB maī MB mañi ; *sts* dhobalā (MBh) [dhavala] but Bh dhawar B dhalā Ass dhelā 'pale'. In non-initial positions O Or kaduma (kadamba) bāmuṇa (brāhmaṇa) jāu(ṃ)ḷī (yāmalī) [inscr].

The modification of the vowels is best seen in the denominative and causative verbs : rahibā / ruhāibā, kahibā / kuhāibā. Of course these are the examples of Or. proper and the change is due to the shift of accent.

It is quite sufficient to show from the above that initial -a- is changed to -o- by the associative influence of the labials which tendency was already noticeable in Pkt (Pischel : GK ff 104) but in NIA the tendency becomes widespread and the conditions are seen to be developing anew. The conditions may be summarised thus :

(a) OIA -a- followed by -n- or conjuncts of -n-> -o- : Bengali : *tss* dhana, jana, mana, vana pronounced as [dhon, jon, mon, bon] also B [kɔkhon, tɔkhon, jɔkhon] etc for kakhan, takhan, yakhan in the medial position ; also B cõc(cañcu). Similary a> e : B lej Ass nej Or lāñja (lañja). Assamese : gondh, odā, rondā, sõcare (gandha, andraka/ audraka, randhra, sañcarati *vide* FA ff 252), compare also Ass karõtā (*karant) etc in medial position. The change of -a-> -e- is also noticeable in B & Ass viz, bẽkā (vakra, *vaṅka) kẽkṛā (karkaṭɪ, *kaṅkaṭa) ; Maithilī : thǎna (stana) jǎna (jana) ghǎna (ghana) dhǎna, pǎna B pon (paṇa), where -ǎ- and -o- are in free variation; Oṛiyā : possibly Or is free from this tendency. cf Or lāñja, baṅkā, kaṅkaṛā etc.

(b) OIA -a- before -r- or conjunct of -r-> -o-: viz, Assamese : kokohā (karkaśa) korokā (karaṅka) mokorā (markara) cobā (carv-) cf Or cobāibā ; Ass odā Or oda also odha (ārdra, udra ?) [FA ff 266] ; Maithilī : sǎba (sarva) tǎra (tala) ghǎra, jǎra (jvara) dǎra (dara) etc. Oṛiyā : cobāibā (carv-) soriṣa, ghoṣāṛibā, od(h)a, poṣa (prasṛta) cf Ass pohā ; ogaḷā 'to hinder' (argalaya-) etc.

(c) OIA -a- with a following -s- or conjuncts of -s- : Or roṣci (rasavati) ghoṣāṛibā, ghoṭibā ; Or notha (nastā) Mai nǎtha etc. Maithilī : chǎṭhi (ṣaṣṭhi) hǎsa (hasa) jǎsa (yaśa) etc. Assamese and Bengali : possibly free from it.

(d) -a- > -o- with association of -h- : Or nohe 'is not' (na-*asati) kuhāibā, ruhāibā (kath-, rah-) etc. Mai kǎha (kathaya) sǎha (saha) dǎha (daha) nǎha (nakha) etc. Ass nohowā, pohā etc. B śior (śikhara) ; Mid B iha, ia (precative imp affix)> io> o cf caliha> colo, diha> dio etc.

Out of the above discussion, no definite conclusion should be drawn as to the cause of this change. From such patterns like nātha / nattha / nǎtha <nastā or pā:khi / pakkha / pǎkha <pakṣa in Maithilī, Dr. S. Jha has come to the conclusion that the change of quality caused by labialization is the substitute for compensation ; but the other points are also worthy to be mentioned :

(*a*) Beside the conjuncts of n, r, s the influence of single n, r, s, h has been noticed.

(*b*) Sindhī, Lahndā and the Dardic speeches do not show such type of change even though there is no compensatory lengthening (cf Grierson : Modern Indo-Aryan Vernaculars ff 97, S. Jha : FM p 70).

Perhaps this phonetic habit should be better placed by the side of

such phenomena as the effect of -h- on tones in Pañjābī, or the influence of -r- and -s- for aspiration or spontaneous nasalization or that of the high vowels in causing Vowel Harmony. The same type of combinatory influence of r, s, h and n as well, is at play here. Here, the Prākrit habit of compensatory lengthening particularly before s, h, r is worth mentioning (cf pkt vīsa- <viṁśati, sīha <siṁha *vide* Pischel : GK ff 76). The process reminds us of the fracture or the breaking of the vowels in Old English which is due to the influence of l, r, or h+consonant or single -h-, upon a preceding vowel (Gothic ahtau OE eahta 'eight' *vide* 'Old English Grammar' by J. Wright ff 49).

It is peculiar to notice that when Bengali has inherited some words without compensatory lengthening from the earlier relics when non-initial -cum- absence of lengthening prevailed (ODBL p 317), the same key sounds are at play, i. e. the conjuncts of s, n, r ; for instances, B yakhan (yat-kṣaṇa) takhan (tat-kṣaṇa) kakhan (*kat-kṣaṇa) *sts* dakhin (dakṣiṇa) panera (pañcadaśa) pãciś (pañcaviṁśati) sab (sarva). Or gacha Ass gach (*gaśca) Ass B jakh (yakṣa) Ass pakh Or pakha (pakṣa) Ass maral B moṛal (maṇḍala) Ass samal (sambala) gãr (gaṇḍa) [FA ff 189]. Or gadha (gardabha) caka (cakra) ãtaṛa, ãta (antra-) pacha (paśca) aga (agra) sabu (sarva) bhala (bhadra) Mai takhãna, palãna etc.

The labialization and the absence of expected compensatory lengthening thus are seen to occur in the same phonetic pattern (i.e. before conjuncts of n, r, s) and this fact naturally suggests that perhaps, the labialization of vowel is destined to happen as a substitute of compensatory lengthening in a particular phonetic setting even in the neo-Māgadhan period.

(vii) Qualitative change of a>e, i in the initial syllables : Examples : Or sindhi (saṁdhi pk saṁdhi) Ass sã:dhi 'joint', sindhi 'hole made by thieves', B sĩdh OB sāndhi Aw sêdh(i) Mai sonhi Bh senhi ; Or bhiṇoi (bhaginīpati pk bhaiṇivai) Mai bahinwæ Ass bhinihi B bonāi ; Or neuḷa (nakula pkt ṇaula) Ass B neul ; Or phiṭikari (sphaṭikāri) B phaṭkiri, phiṭkiri Bh phiṭikiri cf Mai phaṭika Ass phiṭkiri etc.

(B) INITIAL -ā- and -ā- IN INITIAL SYLLABLES

(i) OIA ā before a single consonant in an initial syllable has remained in MIA and NIA unless shortened to -a- through absence of stress. The feature is common to all the eastern languages. Examples : Or māā, mā' (mātā) chāuṇi 'covering' (chādanikā) dhāi 'nurse' (dhātrī) bāigaṇa 'brinjal' (vātiṅgana) cf Bengali begun, dial. bāgun. Or sāntarā 'a surname' (sāmanta-rāja) ālua (āloka) pāṇi (pānīyam) jāṇe (jānāti) yāā 'sister-in-law' (yātṛ-) khāibā (khāda-) pāũśa 'ashes' (pāṃśu) nāhĩ 'was not' (nāsīt) gāi (gābhī) khāi 'ditch' (khāta) āhulā as in *āhulā māri* 'by stirring' (ākula) ḍāāṇī (ḍākinī) bāā:, bā:' 'left' (vāma). O Or māā;sa (MP) mod Or māũsa (māṃsa *sts* *māW~asa)

gā̃: (grāma) kā̃ca 'glass' (kāca) āṇibā (ā-nī-), kāu (kāka) nā̃: (nāma-) sā̃ī (svāmin) kā̃uri (kāmarūpa) kāi 'thin coating' (kvātha ? cf Deś kāvī 'green substance') gāe 'sings' (gāyati) ghāa, ghā' (ghāta) ārasī 'mirror' (ādarśa) āsibā (ā-viśa-) nāhā 'lord' (nātha) nāhi 'navel' (nābhi) pāe (prāpayati) pārā 'mercury, pigeon' (pārada, pārāvata) phārasā 'a kind of fruit' (pāruṣaka-) cf B phalsā, O Or bāhuṛai 'returns' (vyāghuṭati) bā 'wind' (vāta) bāha 'arm' (bāhu-) bāra (dvādaśa) bāṛi (vāṭikā) māḷa (mālā) etc.

(ii) OIA ā before single consonant is shortened to -a- with loss of accent. The examples are found in Or Bh OB Mai Ass and Aw.

Examples: Or aēḷā (MBh M p 99) beside mod Or aāḷā, ā̃ḷā (āmalaka pk āmalaya) Jn āvalā Mai ārā, ɔ:rā, ărā Aw aûrā B ā:olā Bh āwārā, awārā Ass āmrā; O Or aile 'came', nailā, naile 'did not come' (KKo) [āgata to Bloch but perhaps from āyāta-, Turner suggests āpayati] OB āilā̆, āilesi, āvai OAw ā Aw āu Jn ālā Mai aelā(ha); Or araṇā 'wild buffalo' (āraṇyaka pā ā̆raññako); Or ainṭhā, aĩṭhā (āmṛṣṭa) B ẽṭo Mai āiṭha; Or kalejā 'liver' (kāleyaka pk kāleya) cf B kalijā, kalejā Ass kalijā; Or *ts* acāra (ācāra) OB acāre, ācārā̆ OMar ācare 3p sg pr. Mai acāra; Or kalarā 'name of a vegetable' (kāravella-, kāravallī) B karalā, karelā; Or kaṇā 'one-eyed' (kāṇa pk kāṇa) B kānā Ass kaṇā; Or gamāra beside guā:ra 'rustic' (*grāmadāra pā gāmadārako) Aw gā̃wār 'villager' B gõyār; Or caāra:(cẵmara pk cāmara) Mai cāra, cɔ:ra Bh cāwār, cāwar Ass cõwar B *ts* cāmar; O Or jamāi, juāī (MBh G p 10, Ai p 6) jvāī (G p 10) mod Or joī (jāmātā pk jāmāuya) OAw jamāi, jāwāī Jn jāvāī Mai jamāə, jamæ Ass jõwāi B jāmāi; Or thaya 'depth, bottom' (sthāgham pk thāhā) OAw thāha Aw thāh OB thāhā, thāhī Mid B thāha (ODBL p 505) B thā̆i Mai thegha Bh thāh Ass thāuni 'within one's depth'; Or baṇiyā 'merchant' (vāṇija- pk vāṇia) cf Or baṇijāra (vāṇijyakāra, also NC p 29) B bene Ass bẵniyā; Or panāi 'sandal' (upānah pk uvāṇahā, pāṇahā) Jn vāhāṇā Bh Mai panahī Mid B pānai dial B pānā Ass pānai.; Or mausī in colloq. speech (mātṛṣvasā pā mātucchā pk māussī, māussiā, māucchā, māuccā) OMai mā̃usi, Mai mẵusi Aw Bh mausī Ass māhī B māsi; Or saṛhu 'wife's sister's husband' (*syālī-voḍhṛ cf ND); Or śaḷā (syāla pk sāla) B śālā Mai sāra Aw Bh sār; Or hasa 'laugh' (hāsa- pk hāsa) rajā (rājan) etc.

This tendency is best seen in causative and denominative verbs of Oṛiyā viz, Or jāṇibā 'to know' but jaṇāibā 'to inform'; āṇibā (ānaya-) but aṇāibā; hāribā but harāibā; pācibā 'to ripen' (pacya-) but paceibā; lāgibā but lagāibā; māribā but marāibā; kāndibā but kandeibā etc.

(iii) OIA ā before conjunct consonants> MIA -a- before double consonants (just as OIA a + conjunct consonants) > Or ā as compensatory lengthening with one of the double consonants dropped. The feature is common to all the eastern languages.

Examples: Or āmba (āmra pk amba) ḍāhāṇa (dakṣiṇa pk dakkhiṇa,

dāhiṇa) kābāṇa (kārṣāpaṇa pk kāhāvaṇa) rāṇī (rājñikā pk raṇṇiā) bājibā (cf vādyate) bāgha (vyāghra) *sts* pāruśa (pārśva) māûsa (māṁsa) kāṭha (kāṣṭha) *sts* bāida (vādya) bhādua (bhādrapada) bāta (vārtā) bhā:ṛa (bhāṇḍa) māge 'asks' (mārgayati) jāṛa 'cold' (jāḍya) nāsa 'snuff' (nāsyam pk ṇassā) etc.

(iv) OIA ā before conjunct consonants> MIA -a- before double consonants> Or -a- before single consonant without compensatory lengthening for the shift of accent. The Māgadhan languages had this tendency even in earlier stage. Except Modern Bengali which had developed the initial stress even from early Middle Bengali, all the Māgadhan languages show this phonetic tendency.

Examples: Or bhaṇḍāra (bhāṇḍāgāram pk bhaṇḍāāra, bhaṇḍāra) Jn bhăṁḍāra OMai bhaṇḍārī 'store-keeper' Mai bhāṛāra OAw bhaṇḍāru Mid Aw bhāḍārī (J) OB bhaṇḍāra B bhā:ṛār, bhā.ṛāri Bh bhāṛār Ass bhārāl, bhaṇḍār; Or bakhāṇa, bakhāṇibā 'narration, to narrate' (vyākhyānam pk vakkhāṇa) OB bakhāna, bakhānī (vyākhyāta) B bākhān Jn vākhaṇilī 'they praise' Mai bakhāna, bakhāni Bh Ass bakhān Mid Aw bakhānū 'description'; Or tambā (tāmram pk tamba) OMai tamaulī, tama(kuṇḍa) Mai tāma Jn tāṁbaḍī 'red' Bh tāmā, tāmṛā 'copper, -vessel' Ass tām B tāmā; Or khajā 'a sweetmeat' (khādyakam pk khajjaa) B Bh Aw khājā Jn khājẽ; Or ajā 'mother's father' (āryaka- pk ajjaa) cf Jn ājena inst. sg. B ājimā Ass āj 'artless, simple'; Or adā 'ginger' (ārdra-, ārdrakam pk adda) B Ass ādā Bh ada-warī for ārdra-vaṭikā; Or kapā (kărpāsa pk kappāsa) OB kapāsu, kapāsa B kāpās Jn kāpusẽ inst. sg. Mai kapāsa, kappasa Bh kapās(ī) Ass kapāh; Also Or phaguṇa (phālguna) B phāgun; Or kāsā, kaṁsāḷa (kāṁsya-) etc; also in the causative & denominative verbs of the pattern jāgibā/caus jagāibā, bāta 'news'/batāibā etc.

(C) INITIAL -ĭ- & -ī- IN INITIAL SYLLABLES

(i) OIA MIA ĭ followed by one consonant retained its quality in Oṛiyā like other eastern languages. The quantity is ignored in writing.

Examples: Or diāśili 'match-box' (dīpaśalākā, -ikā) dihê, di as in *di'aṇā, dioṭi* (dvi-) niā: 'fire' (nidāgha pk ṇiāha or from agni, pk giṇi? but cp P nigh) ṭhiā, chiḍā 'standing' (sthita) jiṇibā 'to win' (ji-nā-) piibā 'to drink' (piva-) piusī (pitṛsvasā) *sts* bibhā O Or behā (JC) [vivāha] kiṇibā (krī-ṇā-) ghia (ghṛta pk ghia) jhia 'daughter' (duhitā pk dhitā) śiāḷa (śṛgāla- pk siāla) hia (hṛdaya pk hiaa) ghiṇa 'hatred' (ghṛṇā) jiantā 'living' (jīvanta-) jiibā 'to live' (jīva-) O Or tia- (trika- SNG p 28) dihuṛi (dīpavartikā) O Or dili (Puri insc EOLS) for delī 'I gave' (*dita for datta) nimatā, niũtā (nimantraṇa) pimpuṛi (pipīlikā) etc.

(ii) OIA i. ī ṛ, followed by conjunct consonants> MIA i followed by double consonants> Or ĭ followed by single consonant like other eastern languages. But the quantity is ignored in writing.

Examples: Or tini 'three' (trīṇi pk tiṇṇi) nida (nidrā) kichi O Or kichu 'something' (NC p l etc cf kiñcit) bijuḷi 'lightening' (vidyut) micha (mithyā) jibha 'tongue', (jihvā) binati 'request' (vijñapti) bhik(h)a 'alms' (bhikṣā) itara 'vulgar' (itvara- 'going, vile, poor' pk ittara) iṭā 'brick' (iṣṭaka) bichā 'scorpion' (vṛścika) miśibā 'to mix' (cf miśrīyate) bichaṇā 'bed' (vicchādana) pitaḷa (pittala) citā 'painted' (citraka) chiñcibā 'to irrigate' (siñca-) tintuḷi 'tamarind' (tintiḍikā) diṭhi 'sight' (dṛṣṭi) dighi (dīrghikā) diśe 'is seen' (dṛśyate) dhiṭa 'shameless' (dhṛṣṭa) nikha, likha 'egg of the louse' (lĭkṣā pk likkhā) nimba (nimba-) libhibā 'to extinguish' (nirvāti, *nirbhavati to Turner) piṭhi (pṛṣṭha) etc.

(iii) Sometimes MIA -e- <OIA -i- followed by single or conjunct consonants is retained in Oṛiyā and other eastern languages. In other cases NIA -e- is developed from MIA -i-.

Examples: Or beni 'two' (*dvini pk beṇṇi) OB beni; Or kheḷa 'game' (krīḍā pk khiḍḍā also kheḍḍā) Ass kherī OB kheṛā Mid B kheḍī OMai kheḍa Mai kheṛā, kheṛi; Or khecaṛi 'a mixture of rice & lentils cooked together' Jn khicaṛī, khicapurī Ass khicirī. B khicuṛi Bi khicṛi Bh khīcaṛī (Skt khiccā Deś khicca); bela 'wood-apple' (bilva pk bella), bel- also in other branches. Or bheṭibā 'to meet' (cf pk bhiṭṭijjai) also in B Ass Jn; Or leṅguṭi 'loin-cloth' (*liṅgapaṭṭa) B leṅaṭ, leṅṭi Ass leṅti but Aw Bh lãgoṭ from* laṅgapaṭṭa; Or peṭarā (cf piṭakam), initial -e- also in B Ass Mai; Or nehi, nehāi 'anvil' (prob. nikhāti 'iron hammer' pā nighāti pk nihāya cf Turner : ND); Or nembu, lembu (nimbuka-) Mai nēbō Bh nību Ass nemu B nẽbu but Jn nĭṁba Mid Aw nimba, nĩũ(J); Or neuṭibā 'to turn back' (nivartate pk ṇivvaṭṭei) B neuṭā Mid B niwaṛe (ODBL p 491) Ass neoṭh 'to separate from seed as cotton' but -i- in the other branches. O Or tesarī, tīsarā (EOLS) also in B (tri-sara); Or tepana (tripañcāśat pk tevaṇṇa) Bh tirpanĭ B tippānno Mai tirapana Aw tirpan; Or benṭa (vṛnta) OB benṭe Sarv benṭa OAw bẽṭali Aw bẽṭ 'handle' Ass beṭu etc. Or ethi 'here' (Vedic itthā pk ettha); O Or tentaḷī Or tintuḷī (tintiḍikā) B tẽtul; Or lekhibā (likh-) dele 'gave' OB dela (*dita,√ dā) etc.

(iv) Sometimes OIA i, ī+u become -u- after contraction in Oṛiyā. viz, Or sunthā but O Or sīunthi (RBh) [sīmanta- pk sīmanta, sīmantaya >*siW~anta>*siunta, *syunt(h)a] cf Mai siũtha, sĩthi Ass seõtā B sĩthi, sĩthā Jn sevaṭu 'end, limit'; Or cuṛā 'flattened rice' (cipiṭaka pk civiḍa, cimiḍha, civiḍha>*ciWiḍa>*ciuḍa>*cyuḍa>cuḍa) cf Mai cũṛā B ciṛā Ass cirā Bi ciuṛī cf Nep ciurā, cyurā H cyũṛā etc.

(v) Qualitative change: viz, Or suṅghibā (śiṅghati) B sõkā etc (*see* p. 117).

(D) INITIAL -ŭ- & -ŭ- IN INITIAL SYLLABLES

(i) OIA ŭ in initial position and in initial syllables followed by one consonant remain in Oṛiyā and other eastern languages.

Examples : Or puruṇā 'old' (purātana, purāṇa-) bhūï 'land' (bhūmi) kuā̃ra (kumāra) duā, dhuā 'burden of a song', (dhruva) bhuka 'hunger' (bubhukṣā) juā 'gambling' (dyūta) kua 'well' (kūpa) guā (guvāka) muhā̃ (mukham) ūṇā 'less' (ūna) uï (udita) cf OB uiā Mid B ue, uye (udeti), kuhuṛi (cf kuha-, kuhelikā) dhūā̃: (dhūma) lucibā 'to hide' (*luk-ya?) śuā 'parrot' (śuka) dui (dui pk duvi) *sts* khudara 'small' (kṣudra) *sts* uṣuma 'hot' (uṣma) guṇibā 'to count' (guṇaya-) churi 'knife' (kṣurikā) jūi 'jasmine' (yūthikā) tuḷā 'cotton' (tūla-) muhāṇa 'junction of two rivers' (*mukha-ayana) etc.

(ii) OIA ŭ before two consonants>MIA u>Or u, ū (length not shown in orthography) as in other eastern languages.

Examples : Or kumbhāra 'potter' (kumbhakāra) tumbhe, tume 'you' (*tuṣme-, *tuṣmābhiḥ) mukuḷā 'free' (mukta- *muk-na or *muk-va) muliā (*mulyikā) śujhibā 'to pay off' (śudh-ya) upujibā 'to grow' (ut-padya-) kukuṛā (kukkuṭa) ubheibā 'to vanish' (cf ūrdhva) ubhā 'standing' cf OB ubhila ; Or bujhibā 'to understand' (budh-ya) uṛibā 'to fly' (MIA uḍḍa) puchibā 'to ask' (MIA pucch- skt pṛccha-) ṭuṭibā 'to break' (truṭya-) sutā 'thread' (sūtra) ghumāibā 'to sleep' (pk ghummai<*ghūr-ma *vide* ND which is also found as *ghūrmita* for ghūrṇita in O Or frequently) cūnā 'powder' (cūrṇa-) jujhibā 'to fight' (yudh-ya) dudha (dugdha) duba 'a kind of grass' (dūrvā) puniā̃ (pūrṇimā) buṛibā 'to sink' (pk buḍḍai) mutibā (mūtra-ya-) muda 'seal' (mudrā) muga 'a grain' (mudga-) mugura 'a club' (mudgara) lugā 'clothes' (<rugna- pā luggo 'broken' pkt rugga, lugga, the semantic change being' broken', 'worn out'>'rags'>'clothes' *vide* ND p 553) etc.

(iii) Sometimes Oṛiyā has preserved MIA -o-, occurred as OIA -ŭ- before two consonants. Similar is the case with OIA ĭ = MIA -ĕ-, *see before.* The reason forwarded by Pischel (GK ff119, 122, 125) is purely based on the position of accent, for examples Skt lāṅgula, tāmbūla Amg naṅgola, tambola in which cases a presupposed -ll- seems to be developed with final accent, viz. tāmbūlá, *tambulla>*tambola. Turner has explained some of these cases by taking alternate forms in OIA, for examples Or bela B bel does not come from OIA bilvam pk bella but rather from Skt bailvam ; similarly Or pokhiri B pukur descends not from Skt puṣkara pkt *pokkhira but from OIA pauṣkara-. Examples : Or gochā-e (pkt goccha <guccha, *gṛpsa) pothi (potthaa OIA pustaka) koṛha (kuṣṭha pk koḍḍhaṃ) gonda 'gum' (gundrā) kodāḷa O Or koddāḷa (kuddāla pk koddāla) bokā 'blockhead' (cf *bukka- 'goat') moṇḍa (mūrdhan) loṛibā (Skt luṇṭh- pk lūḍai) etc.

In the following examples, Oṛiyā shows the development of -o- (<MIA u) which is peculiar only to Oṛiyā ; Examples : Or oghālibā 'to open' (udghāṭaya- pk uggbāḍai) Jn ughaḍnē Ass ughāl 'to uproot' B ughāre (dial.) [cf ODBL p 877] Aw ugharab ; Or oṛasa 'bed-bug' (uddaṁśa- pk uddaṁsa, uḍḍasa) Ass urāh ; Or koṛi '20' (Austric wd. but to Turner

skt koṭi-) B kuṛi Ass kuri ; Or ogāḷibā 'to vomit' (udgalati, udgirati pk uggilai) ; also Or koṭhāra 'an axe' OB kuṭhāra (*ts*) ; Or koḷi B kul (Skt kulaka) Or kholibā 'to open' B khulā (MIA *khulla) ; Or khojibā 'to search' B khũj- (MIA *khujja-) ; Or tome (*tuṣma-) cf B tumi ; Or tophāna B tuphān<Pers. tufan etc. In fact, these are the cases of Vowel Harmony and are to be treated in the proper place.

(v) In modern Oriyā, there developed a tendency to change the earlier -o- to -a-. This further development as well as lowering of vowels is perhaps of more recent origin, for examples, Or ajāṛibā cf B ujāṛ-, pañja (puñja) maṇḍa beside moṇḍa (murdhan, muṇḍa) kaṛhi 'bud' connected with Bengali -kũṛi- ? Or tame for tome 'you', thanṭa cf B ṭhõṭ [troṭi] etc to be treated under Vowel Harmony.

(vi) Qualitative change of -u- to -i- ; Examples : Or ḍimiri (udumḅara-), pituḷi (also in MBh U p116) [puttalikā] śiśumāra (śuṁsumāra) cf B śuśuk ; O Or śiśumunā (MBh Sv p 4) for suṣumnā etc (*see* p 118).

(E) MIA e, ē <OIA ē, āi, ay IN INITIAL SYLLABLES

(i) OIA -ē-, -āi-, -ay- before one consonant > MIA ē > Or ē as in other eastern languages.

Examples : eka (eka, *aikya pk ekka) egāra (ekādaśa) ehā, ehu 'this' (eṣaḥ) ebe (*etadvat) keuṭa 'a caste' (kaivarta) geru 'a red brown earth' (gairika- pk geruya-) ceĩbā 'to watch' (cetaya-) cheṇi 'cutting instrument' (chedanikā) je 'who' (*yakaḥ, yebhiḥ) tela (tailam, *tailya pk tella) teisa '23' (trayoviṁśati pk tevīsa) tera '13' (trayodaśa pk terasa, teraha) deuḷa 'temple' (devakulam) debā 'to give' (cf *dayati, √dā pk dei) nebā 'to take' (cf nayati) beḷa 'day time' (velā) O Or rehā 'line' (rekhā) lesibā, nesibā 'to besmear' (ślesayati 'joins' pk silesai, lesaṇa) lei 'paste' (lepa-) sera 'nearly 2 lbs.' (seṭa-) se 'he' (saḥ, *sakaḥ) etc.

(ii) OIA -ē-, -āi-, -ay- before two consonants > MIA e before two consonants>Or ē like other eastern languages.

Examples : Or khepa 'load', khepā 'jump' (kṣepya-) kheta (kṣetra) ghenibā 'to take' (MIA geṇhai Skt grah) chepa 'spittle' (śleṣmā pk śeppha) jeṭhā 'father's elder brother' (jyeṣṭhatāta) tete as in *teṭebeḷe* 'at that time' (pk tettia) tetiśa '33' (cf trayastriṁśat pk tettīsa) Or dekhibā 'to see' (pkt dekkhai cf Skt dṛś) neta 'banner' (netram 'cord') pelibā 'to cast down' (preraya, *prelya pk pellai *vide* ND) beta 'cane' (vetra) bela 'an wood-apple' (bilva, *bailvam pk bella) belaṇā 'a rolling pin' (cf vellati 'trembles') beṛhibā 'to encircle' (veṣṭaya-) meṇḍhā 'a ram' (Skt lex. meḍhra, meṇḍha) lepa 'plastering' (lepya) lekhā 'writing' (lekhyam) śeṭhi 'a caste' (śreṣṭhin) setā 'white leprosy' (śvaitram pk setta) heṭa 'downcast' (Budd. Skt heṣṭā, heṣṭhā pk heṭṭhā) mod Or śeya, śeja (śayyā pk sejjā) śela 'a dart' (śalyam pk sella) etc.

(iii) The change -e- to -a- : A few words illustrate the change of -e- to -a- in the initial syllable. This is a characteristic feature in Oṛiyā only. Assamese also shows this habit, but the change seems to be dialectal viz. akal, ekal 'alone' (MIA ekkala) da'li 'threshold' (dehali> *daWali) [FA ff 206], Or nabā for nebā, habā for hebā 'to take, to be' etc. to be treated under Vowel Harmony.

(iv) MIA e, ē sometimes become -i- in Oṛiyā in contrast with other eastern languages (to be treated also under 'Vowels in Contact').

Examples: Or śiuḷi (śaivāla pk sevāḷa, sevāḍa) B śæolā 'moss' O Or dihuṛi (MBh M p 40) mod Or dehuṛi (cf dehalī) niāḷi (nipāvalī but to Turner naipālī) diara (devara) kiāri (kedārikā) O Or tisarā beside tesarī (tri-sara) O Or nea 'take' (MP imp 2 sg.) mod Or nia (naya). O Or dea (MP), mod Or dia<deva etc.

(F) MIA -o, -ō- <OIA -ō-, -āu-, -av- IN INITIAL SYLLABLES

(i) OIA -ō, āu, av, uv- etc before one consonant > MIA ō > Or -ō- like other eastern languages.

Examples: Or oṛhaṇi, oṛhaṇā 'woman's veil' (*avaveṣṭanikā or ava-ūḍha *see* ND pp 61-62 Deś oḍḍhanaṁ) Or ohaḷibā 'to hang' (*ava-labhate ? *vide* ND but possibly connected to Skt avahata 'bent downward' *vide* Pischel: GK ff 194) koha 'sobbing' (krodha) kośa '2 miles' (krośa) koribā 'to scrape' (koṭaya-) koili (kokila-) kolha 'a tribe' (kola, Deś kolla) koḷa 'lap' beside koṛa (kroḍa) gorā 'fair-complexioned' (gaura-) goru (gōrūpa) gosāī 'lord' (gōsvāmin) cokhā 'good, fresh' (caukṣa-, cokṣaḥ 'pure') cora (cora, caura-) joṛibā 'to join' (yoṭaya- pk joḍei) ḍoli 'a litter' (dolikā) toḷibā 'to weigh' (tolaya-) toḷā 'a particular measure of weight' (tolaka) dhokā 'deceit' (poss. drogha) posibā 'to nourish' (poṣaya-) *sts* phoṭakā 'a boil' (sphoṭaka-) phoṛibā (sphoṭaya- cf pk phoḍei) moṛibā 'to twist' (cf skt moṭanam 'wringing' pk moḍei 'twists') moṛā 'wickerwork stool' (mūta 'woven basket', late Skt mūṭa-) roibā 'to plant' (ropaya- pk rovei) rohi 'a kind of fish' (rohita pk rohia) O Or loṇa (RM p 62) mod Or luṇa (lavaṇa) loha (lauha, loha-) Or śohe 'suits' (śobhate) ṣohaḷa '16' (MBh) [ṣoḍaśa pk soḷaha] hoibā 'to be' (cf bhavati) etc.

(ii) OIA ō, āu, av, uv etc. before two consonants > MIA o before two consonants > Or -ō- before single consonant like other eastern languages.

Examples: Or oṭha 'lip' (oṣṭha- pk oṭṭha) ola 'a kind of plant' (ollam but to Dr. Chatterji -olvam-) oṛiā 'inhabitants of Orissa' (*auḍrīyaka, auḍra) oda, odha 'an otter', also 'wet' (*audra-, udra) koṭhā 'large house' also koṭhi (koṣṭha-) khompā 'done-up hair-knot' (MIA khompa<kṣupya, kṣumpa, kṣumpra ? *vide* ODBL pp 329, 510; VRC Intrd p lxi) gobara 'cowdung' (gorvara- pk govvara) goṭā 'one' (cf guṭikā) goṭha 'pasture'

(goṣṭha) cholā 'gram' (cf pk chollai 'skins') jotibā 'to yoke' (yoktraya-), jogāibā 'to supply' (denom. fr. MIA stem jogga- <yogya-) pocchibā, pochibā 'to wipe' (proñcha- pk puñchai) pokhiri, pokhuri (puṣkara, pauṣkara) moti (mauktikam) roṭi 'bread' (late skt roṭikā pk roṭṭa 'rice-flour') mola 'price' (maulyam pk molla cf skt mūlyam pk mulla) lodha 'a kind of flower' (rodhra, lodhra) loṛibā 'to search' (cf skt dhātp. luṇṭhati, loṭhayati pk lūḍai) sosibā 'to soak' (śoṣya-) etc.

(iii) MIA ō, o sometime become -u- in Or which feature is purely Oṛiyā in nature. Examples : O Or loṇa (RM p 62) mod Or luṇa (lavaṇa) ; O Or rumi (roman pk loma) ; O Or loha (PP p 58, GBG, UBh p 65) also lohā (GBG) mod Or luhā (loha) ; O Or juṇha (MBh) mod Or jaṇha (jyotsnā) ; O Or cuhāṇa (MBh) [cauhāna] ; O Or goāḷa (RM p 43) mod Or gu(h)āḷa [gośālā] ; Or punei (paurṇamī) etc.

(iv) The change of Skt -o- & -u- to -a- : A few words illustrate the change of -o- & -u- in the initial syllables to -a-. The tendency is very frequent in Modern Oṛiyā. Amongst other Māgadhan dialects this tendency is in striking evidence in the Bihārī dialect (LSI V. ii p. 147). It is also a characteristic feature of Western Assamese (Kāmrūpī) [FA ff 211]. Though the tendency is of recent origin, but examples are not infrequent in other eastern languages to show that the feature is peculiar to the eastern languages, compare : Or gahama B gam (godhūmāḥ) ; B jahar (jatugṛha) Or johara ; Or sajanā B sajinā (śobhāñjana) Ass sajinā ; Ass kar 'bud' (kora) mathā 'an aromatic plant' (mustā etc).

Examples : Or kaṭuāḷa O Or koṭoyāḷa (MBh) [koṣṭhapāla, koṭṭapāla] Ass koṭowāl Bh kotwāl (<Pers. ?) Mai koṭabāra B koṭāl ; Or gauṛa (gopa-la pk govālaa) O Aw gaawāla (*gayapāla *vide* UVP), guāla O Mai goāra Mai goāra, gwāra Jn govāri Mid Mai goārā (Vid.) cf O Mar gauḷanī f. inst. pl. Bh guāl Ass guwāl B goyālā, gaylā ; Or kaāḷa (komala pk komala) Jn kovalā Ass *sts* kumliyā ; Or kaṛhi (kośa, kora ?) Bh koṛhi Ass kũhi, kõh, kali, kũṛi, kar B kũṛi ; Or gahama 'wheat' (godhūmāḥ pl. pk gohuma) B gam Mai gohuma Bi gêhu ; Or ḍaṅgā (pk ḍoṅgi) Ass ḍoṅgā B ḍoṅā Bh ḍêgi, ḍõgi ; Or ḍama (ḍomba pk ḍumba, ḍomba—an Austro-Asiatic word) Bh B Ass ḍom OB ḍombi f. Mai ḍoma ; Or thaṇṭa 'beak', taṇṭi beside toṭi 'neck' (Skt troṭi cf also tuṇḍam) Mai ṭhõṭha Ass B ṭhõṭ ; Or maṇḍa, moṇḍa (mūrdhan pk muḍḍha, muṇḍha) Jn muṁde Mai mũ:ṛa Bh mõṛ B muṛā, moṛ Ass mũr ; Or chaũceibā (Skt śauca) B chõcāna Mai chõca ; Or janha O Or juṇha (MBh) [jyotsnā pk joṇha] OB johna OAw joṇha Aw jonhaiyā 'moonlight' Ass jon 'moon', jonāi B juni 'moonlight' jonāki 'fire fly' ; Or sajanā 'a plant' (śobhāñjana) Ass sajinā B sajinā, sojne ; Or dhaṇḍā 'a kind of snake' (dundhubha) B ḍhõṛā Western Ass dharā Ass ḍhõrā ; Or danā 'a cup made of leaves' (Skt droṇa pk doṇa) B donā Jn ḍoni 'boat' etc.

CHAPTER III

TREATMENT OF OIA -ṛ-

A. A synoptic history of OIA -ṛ-

OIA -ṛ- as a sonant, is a perfect preservation of the Indo-European sonant liquids*ṛ, ḷ. But still, on and from Indo-Iranian stage, the mutation of the same has started its course (cf I Ir *ṛ=Avestan ᵊrᵊ, uru, Old Persian ar) and in some forms of OIA as early as ṚgVeda, the total disappearance of -ṛ- into a, i u or the development of its consonantal value distinct from ablaut grades are really but to insure the general trends of 'Spoken Sanskrit' imbued with Prākritisms which were to fully manifest in MIA stage (Wackernagel : AltG Band I ff 9, 16, 19, 35, 146, 172, 208 ; for the term 'Spoken Sanskrit' *see* 'History and Pre-history of Sanskrit' by S. Sen).

OIA -ṛ- does not survive in MIA where it becomes a, i, u, e or *sts* ri, ru, re etc. Perhaps, the line of the subsequent changes of OIA -ṛ- in chronological order stands thus :

(a) I. Ir. *ṛ becomes OIA -a- through ᵃrᵃ, ᵃr, rᵃ, compare RV kaṭa, vikaṭa (kṛta, vikṛta) Skt vaṭa, naṭa, bhaṭa ; Compare also the description of Vājasaneyi-Prātiśākhya of -ṛ- as ᵃrᵃ (Avestan ᵊrᵊ) *vide* Wackernagel : Alt G Band I ff 28-29, Bloch : L' Indo-Aryen p 35, Allen : Phonetics in Ancient India ff 2.12.

(b) I. Ir. *-ṛ- becomes -u- through ᵘr, ᵘrᵘ as witnessed by Old Persian kunautiy, akutā and late Vedic kuru Pkt kuṇai ; Vedic kroṣṭṛ but Skt kroṣṭu 'a jackal' ; but the tendency was destined to remain as a dialectal development in proto-OIA. In MIA this change was generally associated with the immediate presence of labial (Bloch : LM ff 31, Pischel : GK ff 51) or took place in nouns expressive of human relationship (Mehendale : HGIP ff 445).

(c) I. Ir. *-ṛ- becomes -i- through ⁱrⁱ, ⁱr, Compare RV śithira Pkt siḍhila from earlier *śṛthira ; samiddha beside samṛddha ; kitava beside kṛtavān.

(d) The change of -ṛ- to -e- is of rare occurrence, viz Skt geha from earlier gṛha, compare Vedic gehya 'household' ; Vedic √ṛdh beside √edh 'to prosper' ; Aśokan Insc dekhati from earlier *dṛkṣati ; Pkt gejjha <Skt gṛhya.

For the whole treatment of -ṛ- in MIA *see* Hultzsch : Introduction to Inscriptionum Indicarum ; S. K. Chatterji : ODBL p 353 : T Burrow :

KhD ff 5; Geiger: Pali Literature and Language ff 12-13; Pischel: GK ff 49-58; S. Sen: Comparative Grammar of MIA (1951) ff 1,23.

Regarding the chrono-regional development of -ṛ-, it is not definitely known on what lines OIA -ṛ- was modified in the various dialect areas. Dr. Bloch, after an examination of the Aśokan Inscriptions and the literary languages on this, decides that the predominant development of -ṛ- was -a- to the south-west and -i- and -u- to the north and east (Bloch: LM ff 30; Turner: Guj. Phon. ff 12).

But Dr. Mehendale has come to the following conclusion: (a) In the Post-Aśokan Prākrit Inscriptions, OIA -ṛ- initially tends to -a- in all regions which tendency started exclusively in the west in the Aśokan times; whereas in the non-initial syllables, it nearly becomes -a- in all regions. (b) The development of -ṛ- into -i- which is noticed almost only in all Aśokan inscriptions was a characteristic feature of Eastern, Central and Southern regions. (c) The change of vowel -ṛ- to -u- is found mostly in noun of relationship, but started in north-west and south in the 3rd century B.C. distinct from -ṛ- > -i- in the same era and in similar words in the east, the north and the central region (beside in the north-west and south). In later centuries however, the u-treatment gets the upper hand in advancing towards south and west (3rd c. A.D.) *vide* HGIP ff 445.

In a comparative study of the Apabhraṁśa of *Vikramorvaśīya* by Kālidāsa (500 A.D.), *Paramātma Prakāśa* (600-1000 A.D.) by Joindu [termed as Western Apabhraṁśa] and *Dohākoṣa* by Kāṇha (700-1200 A.D.) and *Dohākoṣa* of Saraha (1000 A.D.) [termed as Eastern Apabhraṁśa], Dr. Tagare deducts that (a) the initial -ṛ- > -a- of the west and (b) the initial -ṛ- > -i- of the east stand in the same relation of predominance, though the change of -ṛ- to -a- is fast disappearing in both the regions with the advent of the change of -ṛ- to -i- in the west, so much so that the development of -i- from -ṛ- in the medial position was a general feature of west and east. (c) The development of -u- from initial -ṛ- is chiefly due to the labial element (Tagare: HGA ff 16).

But the situation becomes more complex and puzzling when we do come across the same development of -ṛ- into -a, i, u- side by side in all the New Indo-Aryan languages (cf Jain: Phon. of P. ff 94-98, Bloch: LM ff 30-31, Katre: FK ff 8-10, Turner: Guj. Phon. ff 12. For the eastern languages *see infra*). Naturally, owing to the great intermingling of dialects and geographical conditions, as Dr. Bloch has suggested, it cannot be definitely ascertained which of the threefold treatments of -ṛ- is a characteristic vowel of a particular dialect-area in modern times. In the instances given below, all the threefold treatments are illustrated in modern Oṛiyā.

B. Tadbhava treatment of OIA -ṛ- in Oṛiyā and other Eastern languages

(a) OIA -ṛ- becomes -a-: In some syllables, it becomes -ā- as a result of compensatory lengthening with the loss of a component of the assimilated double consonant of MIA. This -ā- again may become -a- when it occurs in a non-accentual syllable. Thus—

Oṛiyā kaceri, kaciri 'Court-house' (Skt *kṛtya-gṛha) cf Bh Mai kacaharī Mai kahacarī but B Ass kāchāri; Or malā 'died, dead' (Skt mṛta-, pkt maa, -illa) cf OB mailê, maalê, maela, maia Mid B maila but O Aw mua Mai muila Bh muwal; Or paṛhibā 'to read' (Skt paṭhati < * pṛthati ? cf prathate 'becomes known' pkt paḍhai) also Bh Mai Aw paṛh- and B Ass paṛ-; Or daṛ(h)a 'firm' (Skt dṛḍha- pkt daḍha, diḍha) cf B daṛa < earlier daṛha, OAw OB diḍha Ass daṛhā 'to warn', daṛhāi 'firmly', Mai dīṛha; Or gañjāi 'drug for smoking' (Skt gṛñja- pkt gañja) cf gã:jā in B Ass Bh Bi. Or saṛaka 'road, way' (Skt sṛti-, *sṛtaka, pkt sii, *saḍakka) also B Mai saṛak Ass sar 'track'; Or maṭhuā 'slow, lazy' (Skt mṛṣṭa- pkt maṭṭha 'lazy') but Ass māṭh 'blunt, slow', B māṭho; Or saṛibā 'to rot' (Skt * śṛta, cf śaṭati 'is dissolved' pkt saḍai) cf B saṛā Ass sar- 'to fall'; Or dabakibā 'to startle, to be afraid' (Skt dṛpyati 'is arrogant', dṛpati 'hurts' pkt dappa) cf B dāpā 'to stamp', dāpaṭ 'oppression' Ass dapāl 'to rebuke', dapālani; Or naṛa-naṛa 'shaking' (cf Skt nṛtamāna, nṛtū- pkt naḍa-) cf B naṛā 'to move'; Or baṛhi 'flood', baṛati 'prosperty' (Skt vṛddhi pkt vaḍḍhi) cf B bāṛti, bāṛ Mai baṛhatī Aw Mai bāṛhi, Ass bāṛha, baṛbā; Or haṭa 'fun, joke' (Skt hṛṣṭa pkt haṭṭha); O Or bacha 'a tree' (RBR p 21) mod Or *sts* brucha (Skt vṛkṣa pkt vaccha) but OB rukhera (gen) MB rukha O Aw rukhu Bh Aw rūkh (Skt vṛkṣa, Ṛg Vedic rukṣa pkt rukkha, ruccha); Or bara 'a banyan tree' (Skt vṛta, vaṭa) Bh baṛ Ass bar; Or kalā 'did, done' (Skt kṛta pkt kaa) eMB k*ai*la O Mai kayala, kaela Mai kaela, kæ:la Bh kail Ass kɔlā; Or *sts* kasaṇa 'difficulty, pain' (Skt kṛṣṇa pkt kasaṇa) OB kasaṇa.

(b) OIA -ṛ- becomes -ā- through MIA -a- plus double consonant as in Oṛiyā nācibā cp OB nācaa,-anti; nāca 'dance' O Or naca (GBG) (Skt nṛtya pkt ṇacca) also Aw Mai Bh Ass B; Or kāṛhibā 'to drive away, to abuse' (Skt kṛṣṭa- to J. Bloch, pkt kaḍḍhai but to Turner the conn. is doubtful) cf O Aw kāḍhata OB kāḍai eMB kāṛhī (absol) Mai kāṛhaba Bh Ass kāṛh; Or māṭi 'earth' (Skt mṛttikā pkt maṭṭia) also in Mai Bh B Ass; Or kānhu, kānha beside kanhāi 'Lord Krishna' (Skt Kṛṣṇa pkt kaṇha) cf O Mai kānhū Mai kānha, kāna kānhu OB kāhṇa, kāhṇu, kāhṇi (voc) B Ass kānāi, kānu Bh kānhā, kānhaiā Aw kanhaiā, kādhaiā; Or ghāṇṭibā 'to stir' (a derivative from Skt ghṛṣṭa- pkt ghaṭṭha) cf OB ghāṇṭi, -e B Ass ghã:t B Mai ghõṭ beside B ghĩt, ghũt; Or sāṅkoḷi, śāṅkuḷi beside sikuḷi 'chains' (Skt śṛṅkhalā, pkt saṅkhalā, siṅkhalā) cf O Mar sāṃkhala (Jn) but OB sikala TS siṅkaḷi, siṅkala O Mai siṅkara Mai

sikkari Bh sĩ:kar Ass śikali B śikal ; Or māṭhibā 'to polish' (Skt mṛṣṭa 'polished' pā maṭṭho, maṭṭo) also in Ass ; Or kāca 'a fine dress' (Skt kṛtya pkt kacca) cf Bh kāc as in kācāral 'washing of clothes', Ass Mid B kāc.

(c) OIA -ṛ- becomes -i- through MIA -i- as in Oṛiyā ghia O Or ghī (EOLS) 'unclarified butter' (Skt ghṛta·pkt ghia) cf O Aw ghia, ghiu Aw ghiu Bh ghiw Ass ghiu B ghi Mai ghyū, ghiu, ghī, ghibahī, TS ghiwi ; Or amiya (also RB p 53) [Skt amṛta pkt amia] OB amia eMB amiā: NB Ass amiyā̃ ; Or māi 'woman' (Skt mātṛkā pā mātiko pkt māi) cf O Aw māhi Aw Bh Ass māī B māi 'breast' Mai māo, māe, mæ, māw ; Or ghina 'hatred' (Skt ghṛṇā pkt ghiṇā) cf Bh Ass ghin OB ghiṇa B ghin-ghin 'nausea' ; Or nāti 'grandson' (Skt naptṛ- pkt ṇattia, ṇattua) also in B Ass Bh Mai but Aw nāt 'relative' ; Or śiṇkuḷi, śikuḷi beside sāṅkuḷi -uḷā, sāṅkoḷi (Skt śṛṅkhalā) *see above*. Or siṅgaṛā 'water chestnut' (Skt śṛṅgāṭaka pkt siṅghāḍaga) cf B siṅāṛā Ass siṅgari ; Or śinga 'horn' (Skt śṛṅga pk siṅga) cf O Mai sĩṅgā Mai siṅha, siṅṅā Aw sĩ:g OB siṅge in loc B śiṅ Bh sĩ:ghi, sĩ:gi Ass śiṅī ; Or siṅg(h) āṇi 'mucus from the nose' (Skt śṛṅghāṇikā, śiṅghāna- pkt siṅghāṇa) cf B śiṅṅi, śikni Ass śeṅun ; Or śiāḷa 'jackal' (Skt śṛgāla pkt siāla) cf B Ass siyāl Bi Bh Aw siyār OB siālī (f), ṣiālā ; Or hia 'heart' (Skt hṛdaya pkt hiaa) cf O Aw OB hia, hiahi (loc), hiẽ (instr) Mid Aw hiya Bh hia B Ass hiyā also Ass hiu 'courage' ; Or sarisā, sari 'like' (Skt sadṛśa pkt sarisa) ; Or bichā O Or inscr bicchā 'scorpion' (EOLS) [Skt vṛścika- pkt vicchia] cf Aw Bh bīchī Mai bicchī, bīccha Ass B bichā ; Or piṭhi 'back' (Skt pṛṣṭha to J Bloch but Skt pṛṣṭi 'rib' to Turner pkt piṭṭhī) also in O Aw Mid Mai Bh Ass but B piṭh ; Or joî, juâi 'daughter's husband' (Skt jāmātṛ- pkt jāmāuya) cf Ass jõwāi O Aw jā̃wāi Mai jamāe, jamæ ; Or diśe 'is seen' < diśibā 'to be seen' (Skt dṛśyaṭe pkt dīsai) ; Or esana, enhe [Skt *avādṛśa to S. Sen (IVC) but to Turner Skt īdṛśa pā pkt īdisa pkt īisa with inf. of -ā- after yādṛśa, tādṛśa (CDIA p 73)] cp OB ā̆isa, aisana 'such' O Mai aisana ; Or kesana, 'how', kisa [Skt *kadṛśa, -na late Ap kaisaṇa to S. Sen but to Turner kīdṛśa, -na pā kīdisa pk kīisa, kīsa Ap kaisa ; kī- being replaced by ka- after jaisa, taisa <yādṛśa, tādṛśa *vide* CDIA p 163] cp O Aw kaisa Aw kais eMB kehena ; Or yesana, yenhe 'in which manner, as, like' (Skt yādṛśa, -na pā yādisa pk jaisa, jēha Ap jaisana) cp OB jaisā, j*ai*sani, -ne 'what like' O Aw jaisa, jasa Aw jais eMB j*ai*sāṇe, jeheṇa Ass y*ai*sāne ; Or tesana 'such like' (Skt tādṛśa, -na pkt tādisa Ap taisa, -na, teha) cf OB taisana, taisā, taiso O Aw taisa, tasa Aw tais, tas OMai taisai 'thus' Mai taise, tehī, tehan 'such' eMB t*ai*sāṇe, tehena Ass t*ai*sāne. O Or inscr siṅgāra (EOLS) 'love' (Skt śṛṅgāra pkt siṅgāra) ; O Or picchā 'question' mod Or pucchā (Skt pṛcchā PG p 5) cf OB piricchā. Or siṭhā, śiṭhā 'juice from a tree' (Skt sṛṣṭi pkt siṭṭhi) OB siṭhi 'creation' ;

Or ṭiṇā 'a kind of grass' (Skt tṛṇa pkt tiṇa) cp O Or tiraṇa (Bacchādās, MBh) OB MB TS tiṇa Bi tinkā 'small piece of mango-leaf fibre' Mai tanik 'thatching grass'; Or kiā 'previous action' (Skt kṛta pkt kia, CDIA p 142) OB kia, kiu; Or nibăṛibā 'to accomplish' [Skt nirvṛta pā nibbuta pkt nivvu(d)a cf CDIA p 418] OB nibitā 'ecstatic' cf parinibittā 'satiated' eMB nibaṛe 'is finished'; Or cahãkibā, cahaṅkibā, camakibā (Skt camatkṛta pkt camakka) OB camakii 'shocked' OAw cauṃkai eMB NB camakita.

(d) OIA -ṛ- becomes -u- through MIA -u- as in Or piusī 'aunt's husband' (Skt pitṛsvasā pkt piussiā, piussā) cf Mai pīsī, piusī, pyusī B pisi cf Ass pehā 'aunt's husband'; Or māusi 'mother's sister' (Skt mātṛsvsṛkā pkt māussiā) cf O Mai mā̃ũusi (for *māW~ usi), Mai mẵusī Aw Bh mausī Ass māhī B māsī; Or pucchā 'question', puchibā 'to ask' (cf Skt pṛcchati pkt pucchai) also in OB eMB OAw Aw Mai Bh Ass; Or buṛhā 'an old person' (Skt vṛddha pkt buḍḍha) also in other branches; Or nikuṭibā 'to show teeth, to grimace' (Skt ni-kṛṣ-); Or saṛhu 'wife's sister's husband' (Skt *syālī-voḍ' ṛ cf Turner: ND p 598); Or *sts* gurasta 'family' (also in SNG p 19)<earlier*gruhastha (Skt gṛhastha); Or śuṇibā 'to hear' (cf Skt śṛṇoti pkt suṇai) cf śun- in other branches. Or rukhā 'lampstand' cp B derkho (Skt dīpa-, vṛkṣa) *see* also under O Or bacha mod Or brucha; Or nehuṛibā 'to kneel down' (Skt nibhṛta pk ṇibhua, ṇihua) OB nihure, nihue eMB nihuṛiā̃ 'bending down' Mid Mai nihuri (Vid) B dial. nihuṛo (ŚKK p 236).

(e) OIA -ṛ- becomes -e- through MIA i, e as in Or dekhibā 'to see' (Skt *dṛkṣa- pkt dekkha-) OAw OB dekhai, also √dekh elsewhere; Or beṇṭa 'handle' (Skt vṛnta pkt biṇṭa 'covering of fruit') also in O Or inscription (EOLS), and OB but TS boṇṭa cf O Aw bễṭali Aw bễṭ Mai bhā̃:ṭā Bh bhễṭī 'stalk of flower' Ass beṭu 'calyx of flower', beside bõṭā, bā̃:ṭ B bõṭā, bā̃:ṭ; Or ghenibā, ghinibā 'to take' (Skt gṛhṇa-, pkt geṇha) also in OB Eastern Ass; O Or keruāḷa (GBh 5th ch, MBh Sl p 15) Ass keruwāli 'an oarman' eMB keroāla 'an oar' MB keruāla (ŚKK p 236) O Mai keruāla (VRC) OB keḍuāla (/ keduāla, keiāla *vide* IVC).

(f) OIA -ṛ- becomes -o- through MIA u, o as in Or ghoṭibā 'to stir, to pestle' (Skt ghṛṣṭa-) *see* ghā̃ṇṭibā *above*; Or ghoṣāribā 'to drag, pull' (Skt ghṛṣ-); Or gochāe 'bunch' (Skt *gṛpsa, guccha pkt gucchaa) cf Ass B gochā, guchi also Ass kochā 'bundle' Mai gõcha. Or muṇāḷa (Skt mṛṇāla pkt miṇāla, muṇāla) B malam (IVC) Ass molān OB molāṇa eMB munāla; Or moṛibā 'to twist, to massage' (Skt mṛd-) OB moḍia, moḍḍiu / moḍiu eMB moṛiā̃ (absol), moṛie B moṛe 'twists'.

For the *tbh* treatment of OIA -ṛ- in other eastern languages, *see* Kakati: FA ff 270-276; Jha: FM ff 98; Tewari: ODBH ff 134; Chatterji: ODBL ff 173; Saksena: E Aw ff 103 (iv), 105 (i) 106 (ii), 107 (i), 108 (ii) 110 (i).

C. Tatsama and semi-tatsama Treatment of -ṛ- in Oṛiyā and other related languages

In *ts* and *sts* words, Oṛiyā always represents OIA ṛ as -ru-. The Marāṭhī pronunciation of -ṛ- as -ru- in the southern tract is only analogous to Oṛiyā ; otherwise, the ri -value of -ṛ- is found all over Northern area (ODBL p 356). Dr Chatterji has observed that from 15th century onwards, OIA ṛ became -ru- in Oṛiyā possibly through Telugu influence. From the epigraphical evidence of the Solar kings (1435-1540 A.D.), it is obvious that the pronunciation of -ṛ- as -ru- was established at that time. The spelling like Pṛṣottama, pṛṇā, gṛbāre (Puri inscriptions, EOLS) for Puruṣottma, puruṇā, gurubāre respectively, indicates that -ṛ- was equivalent to -ru-. The orthography of earlier literature of Oṛiyā confirms also the same fact. For instances, O Or dhṛba for dhruva, śṛtinta, śṛti for śruti (BGi) nairuta for naiṛta (RM) Śatṛghana for Śatrughna (GBG) bhṛ for bhrū (JC) ghṛma for ghūrma (PBG) etc.

But still the -ru- pronunciation was not widespred. Starting from 13th century onward the -ri- value was extant side by side with -ru-. For instances, O Or Krīṣṇa for Kṛṣṇa (13th c insc, cf A B Mahanty : TAOPP) vritti for vṛtti (1271 A.D. insc of Bhānudeva of Ganga Dynasty), krimi for kṛmi (16th c A.D. Siṃhācalam insc of Govindadeva) or the representation of kṛṣṇa as -kri- beside kriṣṇa (*ibid*), kiriṣāṇa for kṛṣāṇa (MBh Sv p 4), tiraṇa for tṛṇa (MBh B pp 9, 69, also in Kaḷasā Cautiśā) śiṅga from *śriṅga for śṛṅga (MBh Ai p 9 also RBR p 2), kripa for kṛpa (BGi), śrījili for sṛjili (BGi), dhirati for dhṛti (BC p 24). Also in old Oṛiyā inscriptions, riṇa for ṛṇa, Risidāsa for Ṛṣidāsa, sukrita for sukṛta, kiṣṇa, kirṣṇamā for kṛṣṇa-, kittībāsa for kṛttivāsa (EOLS p 103). In some modern dialects, too, the -ri- pronunciation is often met with (Misra : OBI) viz, Skt ṛtu as ritu, mṛga as miriga, and ṛṇa as riṇa.

In old Marāṭhī including Jñāneśwarī, the same parallel development of -ṛ- was observed, viz, riddhi for ṛddhi, krīmī for kṛmi (Panse : Jn ff 2.5) or, risiyapa for -ṛṣi-, śriṅghāra for śṛṅgāra (Tulpule : OMR ff 8) and rutu for ṛtu, śruṅga for śṛṅga, śruṅgāra for śṛṅgāra ; or the orthography like śṛti for śruti (Panse : Jn ff 2.6, also pp 586, 582).

From old Bengali down to modern Bengali, the value of -ṛ- was generally, ri, ir but never ru, ur (ODBL ff 174). In folk pronunciation, the -ṛ- is pronounced at ri / ir, ra / ar, or / ro, er / re, or, -r- is simply dropped yielding to the mutated vowel (*ibid* p 357). With regard to the *tbh* treatment of Skt -ṛ- in old Bengali, the vocables of the *caryā* songs (10—12th c. A. D.) presented above from the different editions, viz, CP, CGP, IVP and OBLT, also reveal the early state of affairs in the eastern languages. Besides the predominant frequency of the i-value of Skt

-ṛ- in the *tbh* words so usual in the eastern languages, the *sts* pronunciation of Skt -ṛ- as -i- can easily be detected, for examples, OB pithaka <Skt pṛthak, piricchā <skt pṛcchā etc. It is also interesting to note that some of the forms of antiquity are still current in Oṛiyā viz, ghenibā, diśibā, beṇṭa, kasaṇa etc attested in OB.

In old and middle Maithilī the same -ri- value is corroborated, viz. tṛparva for triparva (VRC ff 10 introd.), sṛkhiṇḍi (Vid.). In modern Maithilī, -ṛ- becomes either -ir- or -er- and dialectal -iri- (FM ff 99).

Old and middle Awadhī like modern Awadhī had also the same pronunciation, viz. O Aw triṣṇā for tṛṣṇā (UVP ff 45 p 22), vritti for vṛtti (Lāl.), riṣi for ṛṣi (T., Lāl) [E. Aw p 58].

In Bhojpurī orthography, there is no -ṛ- as a letter, as Kaithī character does not possess the letter and as such it is written as -ri- (ODBH ff 134).

In Assamese too, -ṛ- in *ts* and *sts* words is prononuced as -ri- since early Assamese (FA ff 277).

CHAPTER IV

VOWELS NOT IN CONTACT IN THE INTERIOR OF WORDS

A. Retention of interior vowels

Interior vowels remain in Oṛiyā when they are inherited from an MIA vowel followed by a consonant or consonants. In Bengali, Assamese and Bhojpurī, these interior vowels are closed by a consonant through the loss of original MIA final vowels. Maithilī shows *schwa* or weak final vowels in those cases. Generally, Maithilī and Bhojpurī have retained the length of the vowels with the exception of -a- in Maithilī which has become labialised in the penultimate syllable. For examples in Oṛiyā—

OIA -a- Or. āñcaḷa (añcala) B ā:cal Bh ā:car etc.; Or. kaāḷa (komala), caāra (cāmara), diara (devara) B deor ; Or. oṛhanā (avaveṣṭana) B oṛnā ; Or. kāndaṇā (krandana) B kānnā ; Or. nahuruṇī (*nakha-haraṇikā, n.kha-kara) B narun; Or. satara (saptadaśa), aḷatā (ālaktaka), sāntarā (sāmantarāja), bāigaṇa (vātiṅgana) koṭharī (koṣṭhagṛha) etc.

OIA -ā- Or. egāra (ekādaśa), ukhāṛibā (utkhātaya-), upāṛibā (utpāṭaya-), śiāḷa (śṛgāla), suhāga (saubhāgya), camāra (carmakāra), kiāri (kedārikā), kapā (karpāsa pkt. kappāha), kumbhāra (kumbhakāra) ; O.Or. cāṇḍāḷa (caṇḍāla), bakhāṇa (vyākhyāna) etc.

OIA -i, ī- Or. dāṛimba (dāḍimba), bāṇiā (vaṇij-), cāḷiśa (catvāriṃśat), die (dīyate, pkt. diai), paciśa (pañcaviṃśati), boita (vahitra), B boita; O.Or. aśiṇa (āśvina, GBG) cp. MB āśina Mai asinī ; Or. kaniara (karṇikāra, pkt. kaṇṇiāra) cp. MB. kaṇiyāra ; Or. ālipanā O.Or. aḷapaṇā (Bh. i, p. 64) (ālimpana) cp. B. ālpanā etc.

OIA -u, ū- Or. āṅkura (aṅkura) ; Or. maṇiṣa, O. Or. māṇuṣi (MBh) (manuṣya,mānuṣa). kukura (kukkura), rāuta (rājaputra), āṅkuśī (aṅkuśa), rāuḷa (rājakula), maüṛa beside mahuṛa (mukuṭa), śaśura (śvaśura), kukuṛā (kukkuṭa), bāhuṛibā (vyāghuṭa-), bijuḷi (vidyut-), hālukā (laghuka, lāghava-) etc.

OIA -e- O.Or. āmbhe Mod. Or. āme (asmābhiḥ, Vedic asme pkt. amhehi), tumbhe, tame (*tuṣmābhiḥ, *tuṣme, pkt. tumhehiṃ) ; O. Or. areha (arekha, alekha, BSAS) ; Or. udeka 'appearance' (*uddekṣā <√*dekṣ to Turner *vide* CDIA but possibly from Skt. udaya Or. ude plus MIA—kka or, a contamination of udaya and udreka).

OIA -o- No instance of retention of interior vowel -o- has been noticed in modern Oṛiyā. However, a solitary example from old Oṛiyā may be cited here, viz., amoha 'unfailing' (amogha, UBh, RM. 23rd. chānda).

B. Elision and Mutation of Interior Vowels

"Elision of vowels in the middle of words through absence of stress occurs sporadically in the earlier forms of IA., e.g. suvarṇa> svarṇa 'gold' " (ODBL ff 167).

Elision of vowel, if unaccented in the middle of words is not a primary feature in modern Oṛiyā. Regarding this aspect, Bengali and Oṛiyā are farthest apart, while Maithilī is in between them. In Maithilī, the unaccented vowels (except -e, o-), penultimate or antepenultimate always become a weak vowel or *schwa*; while in Assamese and Bhojpurī, the interior vowels cannot be said to have been wholly elided. In case of Eastern Assamese there is always the influence of Bengali as there is that of Hindī and Bengali on Bhojpurī. The words of two syllables with the extension of -ā- or -ī- affix always become bimoric in Bengali (ODBL ff 167) ; whereas in Oṛiyā, Assamese and Bhojpurī is represented the earlier habit of stress by which the interior vowels are weakened. This neo-Māgadhan feature is better perceived in the loss of length of OIA -ā- than elsewhere ; for instances, Or. siṅgaṛā (śṛṅgāṭaka) but B. siṅāṛā ; Or. ākhaṛā (akṣavāṭa) but B. ākhṛā ; Or. sajanā (śobhāñjana) but B. sajnā (=sojne) ; Or. baṅgaḷā (vaṅgapāla) but B bāṅlā ; Mai. baṅalā, Mai. palaṅā (paryaṅka) but compare B. pālki ; Ass. batarā (vārtā), cakā (cakra) ; Bh. rakhawār (rakṣāpāla), ghoṛawā (ghoṭaka) etc. (*See* also under 'Stress Accent in Oṛiyā').

Anyway, the elision of interior vowel or syncopation due to absence of stress is not so predominant in the modern eastern languages in contrast to Bengali and Kāmrūpī dialects of Assamese. To the contrary, loss of length or weakening of vowels, even to the extreme of developing an indeterminate value as in Maithilī, is a common trait of Oṛiyā, Assamese, Bhojpurī and Maithilī. In addition, Assamese and Oṛiyā undergo in common a sharp tendency of having qualitative and other assimilatory changes of unstressed vowels in the middle of words (such as Or. Ass. i, u>-a- etc.).

Cases of elision of vowls in Oṛiyā are very few and as such a systematic account of them is not possible at the present stage. The examples where the loss of interior vowels are found, are chiefly pan-Indian and sometimes they are happened to be borrowed from Bengali. Otherwise, they represent the earlier relics of Oṛiyā in which cases the dropping of vowels, especially before or after -r- in medial syllables remaining often as unaccented, was not infrequent. (*See* under 'Stress accent in Oṛiyā'). Some of them have been noted in the following :—

(i) Loss of OIA, MIA -a-. Or. chilkā 'crust' (*chillakka cf. Skt. challi-, śalkala) cp. B. chilkā Mai. chilakoiā Ass. chelani 'dirt accumulated on the skin' <√chelā 'to peel', H.P. chilkā ; Or. khurpā, khurpi 'weeding knife' (kṣurapra- pkt. khurappa) cp. B. Ass. Bi. khurpā, khurpi G. kharpo, -ī ; Or. basti 'slum' (also in O.Or) cp. B. basti ; Or. narka for Skt. naraka, nagra for Skt. nagara, ajarāmra, ajāmbara for Skt. ajarāmara etc. which are also found frequently in old Oṛiyā. Also Modern Or. karta for karata (karapatra) cp. B. karāt ; kharca beside kharaca (Persian xarj) cp. B. kharac, kharcā ; phārsā (paraśu) beside phārasā ; bār(a)sī 'an instrument for scraping wood' ; Or. pātlā 'thin' (patrala) also in B. ; Or baṅg(a)ḷā (Vaṅgapāla) cp. B. bāṅlā *see above*. Or. parśu. also in O.Or. (paraśu), uprodha, also in O.Or. (uparodha) etc.

(ii) Loss of OIA -ā-. Or. bārhā (varāha), O.Or. bhrata (bhārata, MBh. Sl. also in PBG).

(iii) Loss of OIA, MIA -i-. Or. chiṭkiṇi beside chiṭikiṇi 'pellet bow' cp. B. chiṭkini Ass. chiṭikā 'piece of split bamboo'; Or. pālki beside pāliṅki (paryaṅkikā) cp. B. pālki; In modern Oṛiyā emiti (*emant), yemiti (*yemant), kimiti (*kemant) are often pronounced with the medial -i- lost. Or. bheḷki beside bheḷiki 'magic', also bhelki in B. (vihvala ?)

(iv) Loss of OIA, MIA -u-. Or. hālkā beside hālukā (laghuka) cp. B. hālkā

(v) Loss of OIA, MIA -e-. MIA -e-, from various sources in OIA, is rarely lost in Oṛiyā. In most cases it is weakened to -i- or is assimilated to the preceding or following vowel (*see infra*). Examples of loss of -e- : Or. paṛiśā 'a neighbour' (prativeśika, *paḍiYesi) cp. B pa'ṛśi ; Or. paraṣibā 'to serve meal', paraṣā (pariveṣa)

(vi) MIA -o- from various sources : No instance has been found in modern Oṛiyā. Loss as well as retention of -o- is rare in Oṛiyā. Mostly it is raised to -u- (*see infra*) or, otherwise becomes infected by a folllowing or preceding vowel.

(For the elision of interior vowels not in contact in other eastern languages, *See* ODBL ff 167, FM ff 67, FA ff 214-224, ODBH ff 112-115)

Sometimes the weakening of the medial vowel causes conjunction of the separate consonants. For examples—

Or. piḷehi beside pilhāi 'spleen' (plīhan pkt. pilihā) cp. B pilā Mid. B. pilihā, pilīhā Bi. pilhī Bh. pilahi H pilhā ; Or. bighā, 'measure of land' (vigraha pkt. viggaha) cp. Ass. B. bighā Mai. bighā, bigahā G vighû H bighā ; Or. pāga beside paghā 'turban' (pragraha pkt. paggaha) cp. B. pāg. pāgṛi, Ass. pāguri, paghā 'turban', 'a rope for binding cattle', Mai pagahā, pāghā Bh. pagahā Aw. pagahā G. pāgh ; Or. gadha (gardabha pkt. gaddaha) cp. B. gādhā Ass gādh Mai. gadahā Bh. gadahā ; Or. kacheri, kachiri 'court-house' (*kṛtyagṛha) cp. Bh. kacaharī Ass. B. kāchāri Mai kacaharī ; Or. nighā 'look, care' (nigraha pkt. niggaha)

From the above examples it is evident that the conjunction of a consonant plus -h- resulting into an aspirate plosive had been developing in Late MIA stage ; but it is strikingly astonishing that Bhojpurī and Maithilī are still resisting the coalescence of consonants in the above manner.

Leaving aside the changes caused by Vowel Harmony, we have already observed the primary mutations of vowels not in contact in medial position in which cases syncopation and loss of length of -ā- to -a- are worth mentioning. Besides, there are other changes where raising of the vowels,-e, o- to -i, u- is often

met with. This along with other minor changes of Oṛiyā non-contacted vowels are shown below :

(i) Skt. e, o> Or. i, u respectively. For examples—

Or. paṛiśi (prativeśika), diara (devara), diā̃ (deva), ḍihuṛi (dehali), diha (deha) etc. Or. kahuṇi (kaphoṇi) cf. B kanui, Mai kehuni ; Or. tāmūḷī beside tāmiḷi (tāmbūlika pkt.*tammollia) cf. Mai tamōlī ; O. Or. aluṇi Mod Or. alaṇā (alavaṇaka, pkt.*aloṇaā) cf. Mai anonā B āluni ; Or. pakhauja, pakhāuja (pakṣātodya) cf. B. pākhoyāj ; Or. ruṣā (roṣa) etc.

(ii) Skt. e, o > Or. a, ā (<a). For examples—

Or. sāhāṛā (śākhoṭaka) cf. B. sagoṛā ; Or. bāhāṛā O. Or. bāhaṛā (NC p. 58) (vaheṭaka, vibhītaka pkt. vaheḍaa) cf. B. bayṛā, MB. bahaṛā Ass. bhaîrā Mai. baherā Sarvānanda : baheḍā, bahaḍā ; Or. kalarā (kāravella, Late MIA karavella) cf. B karelā, karalā ; Or. pahaḷi (prahelikā) etc.

(iii) Skt. i, u> Or. a. For examples—

Or. parakha (parīkṣā), pichaḷa (picchila), haḷadī (haridrā) cf. B halud Ass. hāladhi Aw. Bh. hardī Mai. haradi; Or. baṛasi (vaḍiśa), parasā (pariveṣa) ; O. Or. aḷapaṇā Mod. Or ālipanā (ālimpana) cf. B. ālpanā; Or. gahama (godhūmāḥ) cf. B gam; Or. pahañcibā (pkt. pahuccai) cf. B. paûch Bh. Aw pahûc Bh. cahûp Mai pahû:ca; Or. samajhibā (sambudhya-), Or. ātaṛa (antaḥ-kuṭa), alaṇā (alavaṇaka) etc.

(For a full treatment of other harmonic and assimilatory changes of the vowels, *see* under 'Vowel Mutation'; and also 'Stress Accent in Oṛiyā' for the changes due to stress)

CHAPTER V

VOWELS IN CONTACT

In Late MIA (Ap.) and early NIA, there was a threefold treatment of the OIA vowels brought into entire or partial contact (i.e., contact with intervening -Y or W- glide) by the elision of stops (ODBL. ff. 169, Bloch LM ff 53). Three different kinds of treatments in the NIA languages are—

(a) The original OIA vowels in contact were kept as separate vowels, by inserting a euphonic Y or W.

(b) The *Udvṛtta* vowels were turned into diphthongs.

(c) They were contracted into a single vowel.

When the contact vowels undergo the process of absorption of one into another with mutual sub-ordination, the total output is the contraction of the *Udvṛtta* vowels (for examples, ai> ae> aẹ> e or iu>* yu> u, etc.). In the process of diphthongisation, both the components in hiatus come within the orbit of stress or breath-force and form a single unit. Usually, contraction takes place when the vowels in contact are already diphthongised. But if the detached vowels with the potential resistance against diphthongisation and contraction, are being uttered in such a way that the tongue position is changed from one vowel to another, the resultant is the production of intermediate vocalic sounds or glides.

In OIA only a few cases of hiatus or *Pragṛhya* were allowed. Few instances like -titaü, praügam- etc. are only citable examples from the Ṛg-Veda, which apart from poetic necessity, are really the speech habits of common people or Prakritisms (Alt. Gram. Band I p. 313). In classical Skt. the vowel-groups except the diphthongs *ai, au,* were unknown. With the disappearance of OIA intervocalic stops in MIA of the Transitional, second and third periods, OIA separated -vowels became MIA vowels in contact (cf. Pischel : GK ff 164). But still forms are not infrequent in which diphthongisation and contraction have already invaded representing thereby in the literary Pkts. the actual trend of going-ahead habit of the common people e.g. āra (apara), thera (sthavira), khāi, khāai (khādati), keli (kadalī), andhāra (andhakāra), deula (deva-kula) etc. But it is certain that the diphthongisation of contact vowels was an earlier process of combinative vowel change. In the Aśokan inscriptions of 3rd century B.C. the diphthong -*ai* is found in the forms like th*ai*ra (stahvira) tr*ai*dasa (trayodaśa) beside mora (mayūra) [Girnar], tredasa (Dhauli) [Hultzch : Grammar of the Girnar Rock Edicts : Corpus Inscriptionum Indicarum, introd. p lvi] where -Y-, -W- no longer remained. On the other hand, the clear trace of glides is represented in the orthography of pre-christian era ; e.g., cavutha (caturtha) [Khāravela insc.] cāvudasaṃ (caturdaśam) [Pillar edicts of Aśoka] avayesi (avādesī=avādayat, Bhārhut insc.). Further in MIA, particularly in Amg., -y- was inserted between the two contact vowels, with the value of -Y- and even -W-. Thus with all probability, the insertion of vocalic glide is the earliest process of all the other two,—diphthon-

gisation and contraction. The line of development, such as proto-Skt. *śrayiṣṭham=śraīṣṭham (cf. Av. sraestəm) >śraiṣṭham >śreṣṭham or, proto-MIA* kaδala, baδara (=kadala-, vadara-) > * kaYala, baWara > kaïla, baüra > kaila, baura > MIA kela, bora, or, Bengali śiyāla (śṛgāla) > śiāla > śyāla > śagl, or, Oṛiyā sunthā [sīmanta-ka> *siWãntaa> * siunthā > * syunthā > sunthā cp. O. Or. sīunthi (RBh)] etc. repeats the same history of subsequent changes in the order of the insertion of glide, diphthongisation and contraction.

Insertion of Euphonic glides

A. The history of Orthography

The letters -y- and -v- were simply semi-vowels in OIA. But in the Trasitional MIA, when the intervocalic plosives were about to disappear, they represented the spirant articulation of stops as in the documents of Niyā Pkt. and Kharoṣṭrī Dhammapada. Now, after the complete passing away from the Aryan speech of the spirant value of the stops and of the original semi-vowels, the Jain Ardha-Māgadhī developed a tradition of inserting -y- possibly to denote the -Y- *Śruti* in the place of the dropped-off consonant, although the distinction of -Y- and -W- was left completely unnoticed. Otherwise, the Prakrit and Apabhraṃśa orthography did not indicate the glides (cf. ODBL ff 170).

The introduction of -y- and -v- (य, व) for the vocalic glides in the orthographic system was put into practice at least from the Apabhraṃśa and proto-NIA-stage when they might be employed without being confounded with the earlier spirant value. But from the irregular and capricious interchange between the real glide and spelling in the modern Indian languages and even in the earlier documents, it is evident that in the proto-NIA- stage, there did not develop a uniform orthography and there was a much confusion between the letters -y- and -v- for the intervocalic -Y- and -W-, viz., OB. pivai MB piye ; OB āveśi MB, NB. āisi, āsi for * āYiśi (ODBL. p. 340), NB. moyā for moWā ; O. Mai. suyara for suWara (śūkara), guyā for guWā (VRC ff 18 introd.) ; O.Aw bayāli for *baWāli (vātāli), pāeṃta for pāyenta < *pāWenta (prāpayant-), sāvaja for sāvaYa = *sāvaWa (śvāpada-) [UVP]; O. Mar. pāya, pāva, (pāda-) [Tulpule : OMR ff 12) OB pāva (c.41) Or. pābacha, pāhāca, pāucha 'steps' <*pāWa (pādakṣepa-) O.Aw. pāyê=pāê (pādena) O.Mai pāena for *pāYena (VRC p. 32), H.Or.B. pāyā 'leg of a table', Ass. pāw, Or. pāā 'one-fourth'; Also, O.Mar rāo, rāvo, rāya O.Or. rāe-guru (rājaguru-) for *rāYa B.Ass. rāy Or rāya H. rāw ; Guj. kɔ:yaḷ for kɔ:Waḷ (kokila-) [Turner: Guj. phonology ff 49 (2)] ; O.Or. rāba 'sound' (rāva) baside rāi (MBh.) <*rāYa ; Or. ṭhāi beside ṭhāba 'place' (<*ṭhāYã, *ṭhāWã <sthāma).

In the next stage, the use of -v- (व) for -W- glide in Māg. Ap. (circa 8th c. A. D.) became quickly obsolete, -w- & -b- being confused and the letter for -w- being

commonly used for both -w- and -b- in the eastern area as early as 7th century A.D.; and hence -y- (य) was left free for one of the glide sounds. The usage was so much in practice that the letter -y- (य) even took the place of -W- as noted above.

Perhaps, in the neo-Māgadhan stage the pronunciation of य=y took the value of -j- even in medial position more extensively (cf. majurá <mayūra in Dhauli and Jaugaḍa insc.); compare O. Mai. jantra, devajānī=yantra, devayānī; O. Aw sāvaja for *sāvaYa=śvāpada, bharyate for bharjate, jo for ya ; OB. indijāṇī (c.34)=indriyāṇi, jo=ya-; O. Or. jo (inscriptions of 15th cent.), joṛa and yoṛa (inscription of Nṛsiṃhadeva—14th century), māryyanī=mārjanī, nijojile < √yuj beside niyoga, pariyante beside parijanta (inscription of 15th century) or rhyme between ācarya/ nāraja in MBh of Śāralādāsa (Sl. p. 16). And thereafter the modification of the script took place by anyhow marking it out below, namely, B.Ass য Or. ୟ. At present the Oṛiyā language has left the script y =Y unnoticed chiefly, whereas Maithilī and Bhojpurī optionally and Bengali and Assamese not at all. In Or. where it is found, it is as a continued tradition of t h practice or, offers a contrast of meaning : compare āyuṣa beside āuśa (13th century inscription) for āyuṣ 'life', triya (PBG) beside tria (trika SNG), hiā, hiyā (hṛdaya, ChG), amiya (RB) amia (PBG) <amṛta ; pāyā 'rank' distinguished from pāā 'one-fourth' (pāda) etc. (*See below*).

Regarding the W-glide, the difference of व (w, b) did not exist—only a single व=v standing for both w, b as has been already noted, in the Midland and Eastern scripts (UVP p4) as opposed to Marāṭhī, Gujrātī, Sindhī, Panjābī, Singhalese and Kāshmīrī (Turner: Guj. phon. ff 50, Bloch, LM ff 150). Naturally, the device of a marked-out -w- came in, though in later stage, in Kaithī, Maithilī and in the other Eastern scripts.

The glide sounds in the earlier languages were normally the half-closed vowels [e, o]. For, in the old documents, the -e- is a graphic device for -ya-, -ye or- -Ẏ- which manifest the lower sound -e-, rather than the higher -i- of the glide -Y-. The value of -W- would consequently appear to be the lower sound of -o-, not the higher of -u- (ODBL p. 340, UVP ff 29). For examples, O.Aw bāyaṃ for bāê (vātena, vātam), pāyaṃ for pāê <pādena (UVP ff 2). Similarly, in O. Mai -e- stands for -ya (ye) e.g. kaela beside kayala (kṛta-), aśraye=aśrae (āśraya). Conversely, ya figures for -e- e.g. rājaputrayā=rājaputraê (rājaputrena) (VRC ff 6) ; O.Mar. avaeva (avayava), nāeka (nāyaka-) [Tulpule, OMR pp. 14, 15.]; OB jāya (c., 40) jāa (c.43) for jāe (yāti). The rhyme between jāi and khāa (c.2) also throws light in this matter ; for jāi stands for jāe (yāyate> yāai> yāe) and -khāa- for khāYa=khāe (khādati< khāai, khāi); Compare also bājaa (c. 31): bājaï (c. 12) : bājae (c. 11) =*bājaYa and mailê (c. 22) : maela (c. 23) : maalê (CGP)= *maYala; disaï (c. 39) : dīsaa (dṛśyate); karaï : karaa (kriyate) where -aya- is represented as ai : ae : aa. O. Mai dharaï (47a) beside chāḍae (77b), 3.sg. present. In old Or. too, -e- stands for -ya-, -ye- (*see infra*) viz, aêḷā (MBh. GBG) modern Or. aāḷā,

ã̄ḷā (āmalaka), rāe-guru (insc. 15th c.) for rāYa (rāja-), samae (insc. 15th c.) =samaye, chāeṇī (MBh. Bh. i, etc.) [chādanikā, *chāYani]. In the same way -i- represents -Ya- = -e- : compare bāi (vāda, *vāYa, vāe), rāi (rāva, *rāYa, rāe), jaïntā beside jayantā, bolāi, bolāe (MBh.), O.Or. pāeka (SC p. 34) mod. Or. pāika and in old Mar. kāi (kāya, *kāe); O. Aw chā:ṭehî beside chāṭchê, jaṇê beside jaṇî etc.

And this short value of -e- represented in orthography as -i-, has caused a new mutation of -aya-, viz. to *aya> aye> ae> ai>e. Compare, O. Mar. āle (ālaya), ude (udaya), atisê (astiśaya) and old Or. āḷe, ude, āśre beside āśrā (MBh).

Thus the interchange of the sounds -e- and -i- strongly suggests an existence of a short value of -e- beside long -e- which established itself as the replacement of the -Y- glide. It might be referred here that in the Niyā documents, the same interchange of -i- and -e- as well as final -āya- written as -ae- beside aya, aye is found, for examples. ch'itra=kṣetra, livi, levi=lipi and the inifinitive forms karaṃnaya, karaṇnaye, deyaṇnae etc. (Burrow : Kh.D ff 1, 3, 8).

Regarding the W-glide, Bengali deviates from other North-Eastern scripts, viz., Maithilī, Kaithī and Assamese inasmuch as it did not prefer a new letter for -v- with a diacritical mark. In Old Bengali the letters -y- and -v- were employed for their respective glides, though sometimes they were unrepresented in orthography (*see* p. 45). But from Middle Bengali it became customary to use -y- (the dot below -y- came much later) to indicate both-W- and -Y-glides all the same, since -v- for -W- glide became obsolete due to its -b- value either in initial or medial position. In addition, the glide -W- was not infrequently left unnoticed like Oṛiyā. With the beginning of the Late Middle Bengali stage the W-glide, as Dr. Chatterjee has noticed, was indicated by its phonetic value -o- plus -y- which was a colourless consonant already representing -Y- or -W- glide. Thus the capricious and irregular course in finding out a letter for -W- glide in Bengali became steady and fixed ; and accordingly, the orthographic system of Late Middle Bengali preferred, for instance, haoyā (i.e., ha-oy-ā) for haWā 'to be' rather than earlier -hayā, haā, haoā- etc. (ODBL ff 170).

The history as to the insertion of -Y- or -W- glide in Oṛiyā is not much complicated. From the very beginning the non-insertion of glide won over the contrary. Whenever the glides are inserted, they are either imposition usually from a foreign script or, are relics of the tradition of proto-Bengali (compare, bhayiṇi for modern Oṛiyā bhauṇi, Naṭuvā for Naṭuā in the inscription of Bhānudeva I, of 1271 A.D. *vide* "An early Oriya inscription" by K. B. Tripathi, published in OHRJ, Vol. I part iii, 1952).

Regarding -Y- glide, the following system of orthography has been noticed in early Oṛiyā inscriptions :

(a) Non-insertion of -y- : For examples, gāana (gāyana), naa (nava, cp. B. nayā), samae (samaye), paḍiā (patita), bhiāṇa (vidhāna), ciāri (catvāri), tṛtiā (tṛtīyā), āuśa (āyuṣ-) etc. [*vide* EOLS].

(b) Insertion of -y- : For examples, bhāyi for Mod. Or.bhāi, bhayiṇi for Mod.Or.bhauṇi (1271 A.D. inscr. in proto-Bengali script *vide* OHRJ Vol. 1 pt. iii); duyi (EOLS 5.20 in Telugu script) but -dui- in early Oṛiyā and proto-B. scripts; srāyiṇi (1330 A.D, EOLS 5.8-9 in Telugu); rāya (15th c.inscr. in Telugu, EOLS 20.10) but -rāe- usually in Oṛiyā script; biḍiyā (1307 A.D. inscr. in Telugu, EOLS 10.9, 13), compare biḍiā in RB p.3 ; bhuyā: (16th c.inscr. *vide* OHRJ Vol. VI pt. iv, p. 250), compare bhūiā:, bhuyā: (MP); yetha (EOLS 9.13), yehi (EOLS 9.15, inscr. of 1403 in Nāgarī script) etc.

(c) Use of -e- for -ya- : For examples, ubhae for Skt.ubhaya (16th c.inscr. in Oṛiyā script, EOLS 49.8, 50.7); nāeka for Skt. nāyaka (1466 A.D. inscr. in Or. script, EOLS 26.9); rāeguru (1436 A.D. inscr. in Or. script, EOLS 11.3); samae for Skt. samaye (1436 A.D. inscr. EOLS 12.2); Nārāeṇa for Skt.Nārāyaṇa (1843 A. D. inscr. *vide* "Bargarh Copper plate of Mahārājā Nārāyaṇa Singh of Sambalpur" by Das and Dey, OHRJ Vol. II, part iii-iv, p.25); āe for Skt āya (EOLS 3.6, 29.7, also 16th c.insc. published in OHRJ Vol. III, pt. iii cf. "An Oriya inscription from Indupur" by Nath), compare also āe (Skt.āya), bae (Skt. vyaya) in MP, etc.

In perspective of the above examples, it is evident that non-insertion of -y- in *tbh.* words, even in some cases of *ts.* words (cp. tṛtīā), is a general practice of early Oṛiyā script. In case of *ts.* words (and sometimes in *tbh.* words, cp. rāe), -ya- is often replaced by -e-. But -y- for -Y-glide to the contrary, remains chiefly as an imposition of Telugu and Nāgarī scripts. Of course, the inscription of 1271 A.D. shows the insertion of -y- in *tbh.* words and it is perhaps due to proto-Bengali influence on Oṛiyā orthoepy which was not fruitful in later stages. The cause of this orthographic habit is not at all amazing if we consider the prevailing practice of pronouncing proto-Bengali -y- as -j- [Compare O. Or. nijogī for Skt. niyogī (EOLS 54.4), nijojile for Or. niyogile (EOLS 36.5), biye for Or. bije (Skt. vijaya), yala for jala, etc. (EOLS), also Yajāti for Yayāti (*See* EOLS p. 3 footnote) parijante for pariyante (Skt. paryanta) etc.]

While in the earlier inscriptions, the non-insertion of -y- glide was gaining ground, the earlier Oṛiyā literature shows a remarkable vacillation between the contrary systems, such as, amia beside amiya, hiā beside hiyā etc. (for the examples, *see* p. 46). A solution for this apparent contradiction is to be sought in the epigraphic evidences. After the separation of early Oṛiyā script from proto-Bengali, a tail-like stroke was being attached to the bottom of the letter of early Oṛiyā -y- or to the end of its vertical only to distinguish it from the value of -j- of proto-Bengali and Nāgarī -y- and this mark clearly appears in an inscription of 1400 A.D. as well as in some other inscriptions (*vide* EOLS p. 68).

Naturally, with the selection of -y- with a tail below, the confusion was put to an end and thus the insertion of -y- became a widespread practice in the early Oṛiyā literature so much so that even in the initial position, it was inserted before

a vowel, as for instances, yebe, yeteka, yeka, yesana, yethu etc. for Or. ebe, eteka, eka, esana, ethu respectively in MP, DR etc., in the pattern of Nāgarī usage (cp. inscr. of 1403 A.D.). But it may be surmised that from late middle Oriyā, this usage of inserting -y- went into desuetude ; and in modern Oṛiyā too, it is usually not customary in *tbh.* words. Where they are at all found, they are stereo-typed relics of early Oṛiyā orthography. And there, it may be supposed that the elision of -y- as a hiatus-tilger was largely influenced and patternised by the orthographic system of -W- glide which in no way ever needed a new insertion of a letter.

The situation of -W-glide in early Oṛiyā inscriptions may be shown thus :

(a) Non-insertion of -W-glide For examples, Or.bibhaa (vibhava), guā (guvāka), śuā (śuka), kua(ṃ)ra (kumāra), duāra (dvāra), caa(ṃ)ra (cāmara), naara beside nabara (nagara), naa (nava), daṇḍoāsi (daṇḍapāśika), rai (ravi) etc. (*vide* EOLS)

(b) Insertion of -v-: For examples, rakhuvāḷa for Mod. Or.rakhuāḷa (1361 A.D. inscr. in Telugu script, EOLS 6.5-6); Naruvā (EOLS 3.7, 13th c. inscr. in Telugu script) beside Naruā 'a place name' (15th c. inscr. in Or. script, EOLS 33.8); naṭuvā beside naṭuā (1271 A.D. inscr. in proto-Bengali script, *vide* "An early Oriya inscription" by K.B. Tripathi, OHRJ Vol. I, pt. iii, 1952); vahāṃkkara 'their' < -u-, a remote demonstrative pronoun (13th c. inscr. in Telugu script, EOLS 3.10); Vaiṣṇava (EOLS 3.3 in Telugu), Baiṣṇava (1403 A.D. in Nāgarī script where -v- is scribed with a dot below like Kaithī *vide* EOLS 9.17, also p. 71); sevata for Skt. śveta (1307 A.D. inscr. in Telugu, EOLS 10.6); bevasdhā for Skt. vyavasthā (*ibid*); bevahāru 'manager' beside behorā, beherā etc. (13th c. inscr. in Telugu, EOLS 3.4) for Skt. vyavahāraka etc.

(c) Insertion of other consonants : For examples, naara (EOLS p. 99) beside nabara 'palace' (EOLS 7.5, 8.3, 26); ābara (EOLS 19.5) beside āura (35.7), āūra (3.6) (Skt. apara); pujāhāri [Skt. pujākārī, Bhuvaneswara inscr. EOLS p. 117 (f)] for mod. Or. pujhārī, sthāhi (EOLS 54.7) beside sthāi (49.5) for Skt. sthāyī.

In consideration of the above, it is not far from drawing out the conclusion that the customary practice of inserting -W-glide was not favoured in early Oṛiyā and if the letter -v- was at all considered to be used for the above purpose, it was chiefly in Telugu and Nāgarī scripts. The inscription of 1271 A.D. (like the Caryās in OB) also shows that the proto-Bengali -v- was sometimes used as a glide in the *tbh.* words. Otherwise, -v- in proto-Bengali and early Oṛiyā scripts of North Eastern India was manifestly pronounced as -b- in initial position. It is better to quote here from Dr. Chatterjee's for the history : "After the 8th century, only one letter, that for -v-, is used for both, showing that in the pronounciation of the eastern area, those two sounds had fallen together; and from the state of things in the 'Bihārī' speeches, and in Oṛiyā and Bengali, it can be seen that in

Māgadhī Apabhraṃśa of the 8th century, and perhaps earlier still, all initial -v-s of MIA became -b-, and medially only the -v- or -w- sound occurred, merely as a euphonic glide." (ODBL p. 226).

In later times, the use of -v- for the -W-glide, however, become obsolete in early Oṛiyā as well as in Middle Bengali writing, as -v- was used for the sound of -b- initially or in the interior of words; and thus instead of devising a new letter exclusively for the -W-glide as Assameses, Maithilī and Kaithī did, early Oṛīyā and sometimes Middle Bengali left the -W-glide unnoticed. But in the subsequent history of the two practices as revealed in Middle Bengali orthography, i.e., of inserting -y- for both the glides and of leaving the glides unnoticed, the early Oṛiyā preferred the latter while the Middle Bengali the former in general. Here, the influence of either Telugu or Nāgarī or proto-Bengali was not strong enough to oust the standard practice of Oṛiyā orthography.

From the epigraphical evidences, one thing is certain that -v-, either original or for the glide -W-, in medial position developed into -b- as early as 14th century, if not earlier. Few instances of Oṛiyā inscriptions, viz., naara: nabara, āura: ābara (*see before*) show that the -b- represents the earlier -W-glide or -v-. The glidic nature is corroborated by the fact that the medieval Oṛiyā literature possesses a great variety of forms having alternative practices, viz., diān beside debān (from earlier *deWān) [MP], gābe beside gāe (=*gāWe), gāṅgeba for gāṅgeya (*<gāṅgeWa) etc. [*see* pp. 47-48 for further examples]. Assuredly, Oṛiyā had already begun in developing the habit of pronouncing this -W- glide as a plosive -b-, if not otherwise vocalised to -u- and it may be presumed that in this stage of consonantisation, the -h-glide had a parallel part to play. For, though -h-glide is almost rare in early Oṛiyā inscriptions (cp. pujāhāri, sthāhi), it is frequently to be found in the medieval literature (*see* p. 52) and as such Modern Oṛiyā is seen to have such forms as ābaṛa: āura, sābata : sauta, pābacha : pāucha like Maithilī, as well as the alternative forms like āhuri, pāhāca etc.

B. Euphonic Glides (y/w) in Oṛiyā and other Eastern languages.

In early Oṛiyā sporadic instances are found where -W or Y- glide was inserted (*see below*). The other old documents show the proper orthography, e.g.,—

OB pivai (c.6) cf. Mid B. piye (Skt. pivati), avaṇā-gavaṇā (c.7) (Skt āgamana-gamana), niyaḍḍi (c.5) (Skt. nikaṭa), cheva-bheva (Skt. cheda-bheda) etc. Of course, the insertion was not universal, e.g., niaḍi (c. 7), khāa (c. 41) beside jāya (c. 4) (Skt. khādati, yāyate). Sarvānanda : bādiyā 'snake charmer', cirāyita (Sn ii, 4, 143), powa (SN ii 4, 157) OIA *upoda cf. Skt. upodikā.

In VRC, the vowel combination occurred with Y or W glide in between, making two distinct syllables, thus, deite acha beside deyite, japaīte beside jarayite, baisalą, baïsala beside bayisala.

In UVP too, such examples are found, e.g., karowa besides karoa, gāwi beside gāī.

In Modern Or. the glides are not shown usually. For instances, diara (devara) kiā (ketaka) for B. deor, keyā etc. Bhoj. does not employ any device for the glides e.g., diā (dīpa), biā (bīja), hiā (hṛdaya), nariar (nārikela), chiāsī '86' but sometimes siyār (śṛgāla), kiāri or kiyāri (kedārikā), awārā (āmalaka), khayar (khadira) cf. B. diyā, hiyā, śiyāl keyāri, āōlā, khayer. In mod. Mai W has become -b- in most cases, viz., ghāba early Mai. ghāwa, dibāṛī (dipāvalī) cf. B. deoyāli, deyāli; Mai cheba (cheda), lābā (lāja). But Y-glide is not often written, for examples, pīara, pīyara (pīta), hariara, hariyara (harita) etc. (FM ff 73).

The glides in Assamese are represented by -y- and -w-; but unlike Bengali and Oṛiyā, Assamese has devised a new symbol (ৱ) i.e., with a diacritical mark below -b- for the -W- glide. In a final position, -W- is often represented by -o- FA ff 238).

So far as -Y- glide in Old Oṛiyā is concerned, the early Oṛiyā inscriptions show the non-insertion of glide as the usual mode of practice. Besides, -y- was employed to indicate the -Y- glide in a traditional way. In some cases, even -e- for -ya-, -ye- is also found (*see before*, pp. 42-43). In early Oṛiyā literature, the same system of orthography is to be noticed, though the alternative practice of inserting -y- (with a tail below) has become widespread and the problem has already been discussed. In Modern Oṛiyā the glide is not usually shown in orthography.

Examples of -Y-glide in Old Oṛiyā : O. Or. kaṇaya (kanaka, MBh. B p. 97), thaya (sthāgha, MBh. B. p. 124, As45) beside thae (SS), śaya beside śaa, śaha (MBh. U2), payara (pāda, MBh. U9) beside payekāra (RB p. 62), śaya (saha, MBh. U85), chayāṇoi '96' (MBh. D. p. 7) for Mod. Or. chayānabe (ṣaṇṇavati, pkt. channaüi), aêḷā (MBh. U.p.99), cp. ayêḷā (GBG) (āmalaka), hiyā (MBh. U. p. 39, ChG) beside hiā (ChG) (hṛdaya), piyara (MBh. D) beside piara 'father' (MBh. D. p. 19) (pitaraḥ), ahia beside ahiya (avidhavā) (MBh. D) for Mod. Or. ahia, ahya, eṭhāye (MBh. U. 6) but ṭhāê (U. 21, 25), sabhāye in loc. sg. (MBh. U. 43) (sabhāyām), Kururāye (MBh. U. 4), also rāyera (RBh) but rāe-guru (EOLS 11.3), tria (SNG p. 28) but triya (PBG) (trika), amia (PBG) but amiya (RB p. 53) (amṛta), bhū-agni beside bhūyagni (ChG), bhaeṇī, bhayeṇī (BA, RM p. 40) beside bhayiṇi (1271 A.D. inscr. of Bhānudeva I) for Mod. Or. bhauṇī (bhaginī), daita beside dayita (KhB p. 88) (daitya), iāḷā-piāḷā (MBh. M. 4) beside iyāḷā-piyāḷā (ChG) (iṅgalā piṅgalā), mayāṇa (Madana), mayemattā (madamatta, BhP p. 150), rayaṇī (rajanī, RM 24th. chānda), cakoyā (RBR p. 45) beside cakoā (SSN p. 35) (cakravāka), poeḷā (UBh) beside poyeḷā RM) for mod. Or pohaḷā (pravāla), poe (BGi) beside poye (GBG) (pota), sabhiye RBh), sabhie (JC, BA) for mod. Or. sabu. [For the examples of -Y-glide in early Oṛiyā inscriptions *see* p. 42].

Examples of -Y-glide in Modern Oṛiyā : Or. śae beside śahe (śata), diara (devara), diā (deva), kiāri (kedārikā), kiā (ketaka), diāśili (dīpaśalikā, *dīpaśalā-kikā), niāḷī (nīpāvali, naipāli), khiā-piā (khāda-, piva-), Oṛiā (auḍrīyaka), die

(dīyate, *dayati), nie (labhati), thāe (*sthāti, tiṣṭhati), yāe (yāti, yāyate), dekhāe (*dṛkṣāpayati, darśayati), hue (bhavati, bhūyate), kie 'who' (kaḥ api pkt. kevi), siā: (sīva-), siāra (sītā-), nāeka (nāyaka), ghāê (ghātena), neüḷa (nakula) etc.

In many cases, the -Y-glide is often represented by the insertion of -y- like other eastern languages. For instances, dayaṇā 'a kind of flower' (damanaka), rāya (rājan), hiyā (hṛdaya), pāyā 'a leg of a table' but compare pāā, pā' 'one fourth' (pāda), chayāaśī '86' (ṣaḍaśīti pkt. chaāsīi), chayānabe '96' (ṣaṇṇavati pkt. chaṇṇaüi), thaya (sthita,* sthāta ?) etc.

Regarding the -W-glide in old Oṛiyā, the inscriptional documents fairly represent the early Oṛiyā orthographic custom of not inserting the glide in the *tbh.* words usually. Though the use of -v- as glide has been found, it is mainly in non-Oṛiyā scripts. The early Oṛiyā scripts employed in the inscriptions evinced that -W-glide of the proto-Oṛiyā language in few cases resulted into consonants, either as -b- as in Maithilī (FM ff 73) or, as -h- which existed side by side with the vocalised forms (compare, ābara : āura, nabara : naara, sthāhi, pujāhāri from Skt. apara, nagara, sthāyī, pūjākārī respectively, *see* p. 44). This state of affairs is still to be observed in modern Oṛiyā. To cite few examples, Or. ṭhāba (also ṭhā), nāba (also nāā), ābara (also āra), labaṇī, sābata, dibāliā (cp. B. deule) beside thāî, nāuri, āhuri, lahuṇī, sautuṇī, diā [sthāma, nāva(-dārika), apara, navanīta, sapatnī, deva (-kulika) 'pauper'] etc. It is also worth noticing that in few Persian loans of modern Oṛiyā, there has developed -b- for -w- where Bengali has replaced it by the glide in its own system ; for examples, Or. debān B. deoyān (cf. diān, debān in MP) (dīwān), Or. sabāl, sauāl, suāl B. saoyāl (sawāl, suwāl), Or. sabāri, sauār B. saoyār (suwār), Or. ābāj B. āoyāj (awāz) etc.

The examples of -W-glide in proto-Oṛiyā and early and modern Oṛiyā are shown below :

(i) -W-glide (not shown) in Old Oṛiyā : O. Or. keruāḷa (GBh 5th. chānda, stanza 19, MBh. Sl. p15) cf. OB. keṛuāla (kṛpīṭapāla), kuāra, kuā:ra (kumāra, MP), goāḷa (RM p. 43) for modern Or. guāḷa (gopāla), daṇḍoāsi (EOLS), daṇḍuāsi (JC) for modern Or. daṇḍāsi (daṇḍapāśika), paṭoāra, pa ṭuāra (MP, BA) 'a procession' (prasthacara pkt. paṭṭhacara).

(ii) Proto-Oṛiyā -W-glide represented by -b/h- and -u- in old and modern Oriyā : O. Or. gābe (SSN p. 17) for Med. Or. gāe from proto-Or. *gāWe (gāyati), O. Or. bābe (Rasakulyā) for bāe (vāḍayati, proto-Or. *bāWe), O.Or. pābanti (BGi) for pāānti (prāpayanti), similarly, bābanti (vādayanti, PC p. 21, RM p. 21, GBG), gābanti (gāyanti, RM p. 51), śibāḷa (śṛgāla,* śiYāla, śiWāla, PG p. 9) for śiāḷa, gāṅgeba (gāṅgeya, BGi), Gāgreba (Gārgeya, GBG), abābi (-maṇḍala) (avāyu, *-vāYi, *vāWi, PBG), kumara (MBh. Md. p. 49) for Mod. Or. kuāra <*kuWāra (kumāra), jamāi, juāî <*jaWā:î (jāmātṛka, MBh. G. p10), also jvāi

(MBh. G. p10) for Mod. Or. juāĩ, joĩ, O. Or. bābana (BA, MBh), bāhana (TB), bāāna (MBh. D. p. 24 etc.), bāuna (Bh.i. p. 44) for mod. Or. bāna '52' (dvāpañcāśat, *bāvaṇṇa, Late MIA bāwaṇa), koṭoyāḷa beside kaṭuāḷa (koṭṭapāla, MBh. N p12), yamaḷā (MBh) (yāmalam,* yāWāla) for Mod. Or. jāā:ḷā, jāûḷā 'twins', O. Or. kebaṇa (NC p. 43 etc.), beside keuṇi (KhB p.37, 57, 111), *kau*ṇasi (KhB p. 110), kehuṇasi (RM p. 5), kehuṇi (NC p. 31) for Mod. Or. *kau*ṇasi (kaḥ punaḥ, Ap. kavaṇa), cp. kebaṇa, yebaṇa (MBh Md.) ; Compare also modern Oṛiyā nāba beside nāuri cf. OB nāvaḍi, (nāva, nāvadāra, *nāvaṭika), ābara (also in O. Or. *vide* EOLS 19.5), āhuri ; ṭhāĩ, ṭhāê, ṭhā (sthāma, *ṭhāYā, *ṭhāWā), also postpositional affix ṭhaû, ṭhû ; labaṇī (also in Gopī Bhāṣā), lahuṇī ; pābacha, pāucha, pāhāca (pādakṣepa) ; sābata cp. sautuṇī (sapatnī) etc. (For the examples of -W-glide in early Oṛiyā inscriptions *see* p. 44).

(iii) Examples of -W-glide (not shown) in Modern Oṛiyā : Or. kūa (kūpa), dhuā: (dhūma), chuā (śāvaka). duā (dhruva) 'burden of a song', śuā (śuka), juāṇī (yamānikā), juāḷi (yugapāla-), ue 'arises' (udeti) cp. Mid. B uye ; muā: (modaka), kuā (kāka), kuāra (kumāra), nuā (nava), kaṭuāḷa (koṭṭapāla, koṣṭhapāla), rakhuāḷa (rakṣāpāla), taruāḷa (tara-vāri), dooṛa 'to be cultivated twice,' etc.

In the present orthography of Oṛiyā, the -W-glide is often seen to be represented by -o- or -ov- mainly in foreign loans. Perhaps, this practice is borrowed from Bengali where -W- is indicated by -o- and -oy-. Regarding -ov- in Oṛiyā, it is to be observed that the semi-vowel nature of -v- is preserved in conjucts of plosive plus -v-, such as -tv-, -dv- etc. (Note the pronunciation of Skt. tattva in Oṛiyā as -tatua-). Thus to ensure this -v- value, the letter -b- is attached below -o-, i.e., the phonetic value of the glide, such as in Or. beovā beside beuā (vidhavā) cp. B. beoyā (=bagoyā) ; reovāj (Persian rewāz) cp. B. reoyāj 'custom'; deovān (Persian dīwān) cp. B. deoyān 'minister' ; parovānā 'summons' beside paruānā (Persian parwane) cp. B. paroyānā etc.

Regarding the development of the glides between vowels, it is seen that a glide does not always appear in the inlaut position of the vowel groups. In many cases, a glide is an audible sound between vowels, if they are not otherwise diphthongised or kept separate as vowels in contact. In cases like a vowel plus a high vowel, it becomes diphothongised, for instances, Or. khaira, paisā, pāibā, dauṛi, dāu 'revenge', koili, nāuri, neibā, hoibā, mausī, dei 'by', deī (devī) etc. In the combination of a vowel plus -e-, such as -ae, ie, ue- etc. (the vowel plus -o- being not usual in *tbh.* words) and of a vowel other than -a-, -ā- plus -a, ā-, such as -ia, -iā, ua, uā- etc., the glide is ordinarily an audible sound and a slow enunciation is perceptible, though the contact vowel -āe- in final position seems to be diphthongised like Bengali and Assamese (but unlike Maithilī *vide* FM. ff 74). Compare the pronunciation of -śae- 'one hundred' and -yāe- 'goes' in Oṛiyā. But when similar vowels happen to be in contact (as in naa, nāā :, nāā, piibā,

suukā etc.), the glidic deliberation is not heard and either they maintain the hiatus without any intervention of a glide, or sometimes, as in ordinary and colloquial pronunciation, are contracted yielding a resultant long vowel (cp. nāã:/nā:'). It is also peculiar to notice that the insertion of -y-, though not usual in *tbh.* words in Oṛiyā, is chiefly found in few vowel combinations, such as -aa, aā, āā- to distinguish them assuredly from the contacted vowels, e.g., pāyā 'leg of a table' in contrast with pāā 'one-fourth', bāyā: 'a musical instrument' in contrast with bāā:, bā: 'left', bāyā 'mad' : bā 'wind', also payara 'feet', payāra 'a couplet of 14 syllables', sāyā, āyā 'a nurse' etc. (*see* also p. 41).

As has been stated above, a glide develops in modern Oṛiyā between a high vowel and -a, ā-. But few instances show that there had been a tendency towards diphthongisation and contraction of this combination even in early Oṛiyā, the line of devleopment being (i) uWa, uWā > wa, wā for ua, uā > -o- and (ii) iYa, iYā > ya, yā for ia iā > -e-. For examples in Oṛiyā—

(i) Modern Oṛiyā juāî, joi (jāmātṛka) cp. juāî (MBh. G plO, Ai. p. 6) jvāi (MBh. G. p. 10); Mod. Or. soê (svayam) from *suayê; O. Or. soga (RB p. 27) beside suhāga (saubhāgya) for Mod. Or. suāga; O. Or. khuāila (MBh. K. p. 49) beside khoibā (Ai. p. 8) for Mod. Or. khuāibā 'to feed'; O. Or. śvāi (MBh N p. 13) beside śoi (M p. 40) from śuāibā 'to lay in bed'; O. Or. huai, hue, hoe (AKG), hoi (BrN p. 16), hoai (PG p. 23 NC p. 53), hoye (DR, RBh) for Mod. Or. hue (bhūyate); O. Or. huanti, hvanti (MBh B p. 53) beside honti (MBh B p. 37) also hvanti, honti (AKG) [bhūyante].

(ii) Old Oṛiyā bhiāibā (MBh U p. 55 also in inscr.) beside bheibā (Ai p. 14) for Mod. Or. bhiāibā 'to create' (vi-dhā-); ciāîbā (MBh U p. 75) for Mod. Or. ceîbā 'to wake up' (cetaya-), paṭhiāibā 'to send' (MBh. Md. p. 11) for Mod. Or. paṭhāibā, paṭheibā (prasthāpaya-).

The same tendency has been noticed by Dr. Chatterjee in modern Bengali where -Y/W- is audible between low vowels, -e, o a ā-; but in the combination a high vowel plus vowel, contraction takes place (ODBL p. 341). For examples, B śiyāl (śṛgāla) > śiāl > śyāl, śe:l > śaęl; śu(W)ar for śuar (śūkara) > śwar, śuar > śor etc.

Sometimes in Oṛiyā, contraction with the loss of glide and diphthongisation due to vocalisation of glides go hand in hand. Here Oṛiyā resembles Assamese and Bengali in the former feature, while Maithilī in the latter, though in Maithilī a further contraction takes place (i.e. aYa, āYa > āę and aWa, āWa > ɔ). But, at the same time Oṛiyā is analogous to Bhojpurī where, unlike Bengali and Assamese, there has not been much contraction and the vowels are kept separate [compare Or. naara (nagara) - 'palace', śaarā (śavara), kaāḷa (komala), gāā: (grāma), nāā:ku (nāma) 'a little' etc.]. Regarding the contrac-

tion and diphongisation of the neo-Magadhan -Y/W- glide, the line of development is as follows :

(i) -aa-, (also -āa- etc.) > -aWa- > au- > -ao- > -ɔ-, -a- in Maithilī, but -au- in Oṛiyā in contrast with -a, ā- (< a(W)a) in Assamese and Bengali and sporadically in Oṛiyā.

(ii) -aa- (also -āa- etc.) > -aYa- > -ai- > -ae- > -aɛ- in Maithilī, but -ai- in Oṛiyā in contrast with -a, ā, (ay)- < (a(Y)a) in Assamese and Bengali.

For examples, Or. āhuri, O. Or. āura Mai. ɔ:ra, Ass. B. ār (apara), Or. ṭhāĩ, ṭhā beside ṭhāba Mai. ṭhɔ Bh. ṭhāi, thāw Ass. ṭhāw, ṭhāi OB ṭhāvi B ṭhāĩ (sthāma > ṭhāWā, ṭhāYā Ap. ṭhāu) etc. (For a detailed treatment *see* under 'Contraction of Vowels in Contact').

Labial colouration of vowel due to the adjacent -W- glide is also an ancient feature. The sound groups like -avā, aWā- become -uā- in Or and owā in Ass. (cp. Mai -abā-) from earlier <* aWā. Though the feature is not usual with Bengali where -aWa- < -a- after contraction with the loss of glide, sporadic instances attest the earlier prevalence of this phonetic habit, for examples, Or. cakuā Ass. cakowā B cakā (cakravāka); Or. rakhuāḷa Ass. rākhowāl B. rākhāl (rakṣāpāla); Or. taruāḷa Ass tarowāl B taroyāl (taravāri); Or. kaṭuāḷa Ass. koṭowāla B. koṭoyāl, koṭāl (koṭṭapāla); Or. juāṇi B joyān Ass. ya'nī (=zoni) (yamānikā); Or. cānduā B cā:doyā Ass. candowār, candār 'a canopy' (candrātapa); Also to be noted Ass. kowā Or. kuā (kāka > kāa + ā > kāWā > kaWā > koWā) ; Ass. powā B poyā 'a quarter-weight' (pāda-) etc.

C. Euphonic Glide -h- in Oṛiyā

The development of -h- as euphonic glide is a new phenomenon in the history of Middle Indo-Aryan. Instances are not wanting in the literary Prakrits, viz., sīharo (śīkara), cihuro (cikura), bharaho (bharata), chāhā (chāyā) etc. The existence of -h- glide is even traceable in Kharoṣṭhī documents (*vide* Kh.D. ff 28[3]). For the detailed treatment, *see* the article "The Euphonic Glide -h- in Pkt." by S. N. Ghosal in the "Journal of the Oriental Institute", Vol. IX, No. 3 March, 1960.

Different scholars like Jocobi, Pischel and others, have raised disputable points as to the causes of the development. The traditional view suggests that it is a spontaneous development to fill up the hiatus. Pischel strongly opposed this assumption by forwarding his hypothesis that it is the resultant of the loss of the aspirated mute developed spontaneously from the intervocalic single unaspirates, as for instance, Pkt. bharaha from earlier *bharatha (Skt. bharata) [*vide* GK. ff 206, 207 & 255].

But I think, it would be plausible to take it as a creation after the phonetic analogy of the intervocalic -h-, derived from the plosive aspirates, in the existing forms which were so abundant in Prakrit. The English examples are worth

mentioning here, viz., *idea-r-of*, *India-r-office* after the analogy of English *far away*, *better off*, *here and there* etc. (cf. Language by Jespersen, Chapter XV ff 10).

The development of -h- glide in the modern Aryan languages, though not exclusively dialectal in nature, cannot be traced back to the Prakrit usage. Stray examples are always met with, here and there, in almost all of the New Indian Languages, but without logical foundation and uniformity (*see* OWR ff 87, LM ff 161, FK ff 48). But none of the languages is so prolific in the employment as is Oṛiyā, especially in contradistinction to other eastern languages. A sweeping generalisation as to the causes of the development in Oṛiyā, which remain still obscure, is not always safe, though it may remind us of the old Prakrit habit; or, of the conservatism of Oṛiyā in keeping the intervocalic-h-, even besides the aspirated nh, mh, lh, ṛh (compare panheibā, umheibā, olheibā, baṛhibā etc.) which are absent in Bengali or Assamese; or, of favouratism of Oṛiyā in the prevention of the hiatus by insertion of -h- as in Telugu, or that of v/y as in Tamil and Canarese (cf. CGD pp. 178, 174). Compare Oṛiyā ghia < ghiYa, Bengali ghi; jhia < jhiYa, Bengalil jhi; pua < puWa Bengali po for Sanskrit ghṛta, duhitā, pota respectively.

It may be presumed that the devlopment of -h- glide is a new practice gaining ground gradually in modern or middle Oṛiyā. The earlier Oṛiyā examples show that the words with -W/Y glide are often represented by -h- glide with accompanying Samprasāraṇa of the earlier -W- in the modern stage of Oṛiyā on the one hand, and have resulted into -b-, on the other as in Maithilī (*vide* FM ff 73). Besides, in some Sanskrit loans, an unetymological -h- appears between -aa- or -āā-, or even -oa-, developed possibly from the habit of pronouncing Sanskrit vowels as long.

With reference to the other eastern languages, the -h- glide is very rare in Bengali. The citable examples are : in ŚKK, dehāra deva for deāra deva, or dehera deva tomhe jagatera nātha (S. Sen, Bh. I p. 192), parihāhe beside parihāe (pratibhāti, pratibhātayati), suihe for suie (svāgati) [cf. S. Sen: Bichitra Sāhitya Vol. I, p. 66]; Modern Bengali bāhānna for bāyānna '52', nahalā, naolā 'a card of nine' (nava-).

From Bhojpurī, Dr. Tewari has quoted dhūhā (dhruva) as a solitary instance. Bhojpurī and Maithilī bihulā, Bengali behulā 'a legendary heroine', is perhaps not a case of h-glide which comes from vihvalā rather than vipulā (S. Sen : Bāṅlā Sāhityer Itihās, Vol. I. p. 1007, second edition). In Maithilī too, the examples are rare; e.g., chāha, chāhari (chāyā), kahāli (kātara, -ika). suhikāra (svīkāra) [cf. FM. ff 73].

In Old Awadhī, -lahuḍā- beside laüḍā, laüḍī (lakuṭa) has been referred by Dr. Chatterjee (UVP). In modern Awadhī, -h- appears only to fill up the hiatus of -aï- as -ahi- in the verb, third person singular, present tense (cf, Saksena: Evolution of Awadhī, ff 88). In Assamese, too, the h-glide is rare and unusual. The stray examples are : nihal (nigaḍa), loh (lotaka), compare Oṛiyā luha, Assamese dānah (dānava) etc. [Kakati, FA.]

Some examples culled from the sources of spoken Oṛiyā and old Oṛiyā literature are given below :

O. Or inscr. sthāhi (EOLS 54.7) beside sthāyi (49.5) (sthāyī); pujāhāri for Mod. Or. pujhārī (pujākārī) [EOLS. p.117] [*See* before pp. 44-45]. Oṛiyā mahaṇa 'one maund' cf. B.ma'ṇ (for mon) [Skt. manā, a loan from Semitic]; Or. pohaḷā 'coral' but O. Or. poeḷā (UBh), poyeḷā (GBG, RM 20th. chānda) for *-poYaḷā (Skt. pravāla pk. pavāla) cf. Mid. Mai. pobāra, Mai. poāra, pwāra, Mid. B. powāra, B. palā, Ass. powāl; Or. dihuṛi 'a lamp' (Skt. dīpavarti) cf. Aw. diaṭi, Bh. diaṭi, B. deuṭi; Or. luha but O. Or. lua (BC p. 135, RB p. 84), loya (SSN p. 80) 'tears' (Skt. lotaka) cf. Ass. lo, Eastern Ass. loh B. lor; Or. āhuri beside ābara (in poetic use) O. Or. ābara beside āūra (inscriptions *vide* EOLS), ohori (MP) [Skt. apara pkt. avara] cf. O. Aw. āwara Mid. Aw. aur Aw. aur, O. Mai. āora, aora, āwara, awara. Mid. Mai. aru Mai. āra, ɔːra, āora, ora, Bh. āwaru, aurī, Ass. āru B. Ass. ār; Or. lahuṇi beside labaṇi (in poetic use), O. Or. labaṇī (GBh etc.) (Skt. navanīta pkt. ṇavaṇīa) cf. Mai. nenu Aw. nainū Ass. lawanu, la'ni B. na'nī (for nonī); Or. śaha beside śahe, śae (Skt. śata pkt. saya) cf. O. Mai. sae tīni '103' O. Aw. saū, Aw. saya, sau, saī, Bh. saw, saī, Ass. śa B. śa; Or. ḍāhāṇī beside ḍāāṇī, ḍaṅkuṇī (Skt. ḍākinī) cf. B. ḍāin, ḍān; Or. mahaḷa 'dirty' beside maḷi (Skt. mala) cf. B. maylā; Or. gahaṇa 'a multitude' (Skt. gaṇa); Or. *sts.* śahastra (Skt. śastra); Or. cāhā 'tea' cf B. cā; Or. pāhācaru 'false step' (pādacara ?); Or. āhulā 'an oar' (ākula ?) Or. dohaḷibā 'to swing' (Skt. dolaya); Or. pāhula 'a footmark', also in GBG (pāda); O. Or. *sts* srāhāna (MP) but sāhāṇa (JC) [Skt. snāna]; Or. pāhāca, pāucha, 'stair-case' but O. Or. pābacha (AKG etc.) (Skt. pādakṣepa ?); O. Or. sāhāseṇa (Skt. śvāsena, Kaḷaśā Cautiśā): O. Or. sāhera (Skt. sāgara, CM pt. ii. p. 61, also BA) cf. B. sāyer; O. Or. tihuṛi (trikuṭa, BSAS); O. Or. bāhana '52' (TB), bābana (BA) bābana, bāuna (MBh) Mod. Or. bāna (Skt. dvāpañcāśat) cf. B. bāhānna; Or. rāhāsa (Skt. rāsa, also PBG etc.); O. Or. rahasa (Skt. rasa, JC); O. Or. sāhāṇa (Skt. śayana, RB p. 59); śahasra (Skt. śastra, MM p. 61); O. Or. āhuṛa (RM 10th. chānda) beside modern Or. āuṛibā (Skt. āvarta); O. Or. āhuṛa-bāhuṛa 'restlessness' (Skt. ākula-vyākula. RM p. 50); O. Or. *sts.* śāhāstra (BGi), also in modern Or. (Skt. śāstra); O. Or. sohati 'stream' (SC p. 5) cf. modern Or. sua, also O. Or. soi [inscriptions of 1396 A.D *vide* EOLS] (Vedic srotyā, Skt. srotas-); O. Or. nahu '9' (Skt. nava, DR); Or. cahāka, cchêkā, cihīkibā 'to startle' (camaka-); Or. nahuli 'a young woman, new' (nava-); Or. nāhākā 'chief, head' (nāyaka, or, a contamination of Skt. nātha + nāyaka) etc.

O. Or. ṣohaṛa, ṣohaḷa (MBh) for modern Or. ṣoḷa (Skt. ṣoḍaśa, pkt. soḷasa, soḷaha, soḷā) may not be a case of h-glide; possibly it comes from proto-Oṛiyā *soḷaha by metathesis, compare O. Mai. solaha, sorahiā (adj.), Mai. soraha, solaha, Mid. Aw soraha Aw. sorā, sorah. Bh. sorah, sore Ass ṣola B ṣola'. Similarly, Or. *sts.* snāhāna may be explained as contamination of OIA snāna and pkt. ṇāha [*vide* Bulletin of Philological Society, Calcutta, 1959 vol. I pt. I p. 24], compare, O. Aw. ṇhā for Skt. snāti, Mid. Aw. nhāi for Skt. snātvā Aw nahāb, nahā, hanā Mai. nahagba Bh. nah- B. nāoyā.

CHAPTER VI

DIPTHONGISATION OF VOWELS IN CONTACT

It has already been observed in the previous chapter that in the earlier stages of MIA before the wholesale dropping of intervocal stops, diphthongisation and contact-vowels went hand in hand in few cases. However, in the later stages too, diphthongisation of the -a + i- and -a + u- vowels in contact occurred to a certain extent in Old Bengali and Māgadhī Apabhraṁśa (ODBL pp. 342-343). In the development of Oṛiyā, we see that diphthongisation of vowels of different quality took place, though not on a large scale, from early times. Though the use of diphthongal letter *-ai-* (ऐ) in *tbh.* words occurs even in the 13th century inscriptions, the earliest occurrence is to be noticed in an inscription of 1051 A. D. in the reign of Anantavarmadeva (cf. saṇibār*ai*ṃ in A-8, compare also the plate facing p. 222, EOLS).

So far as the other eastern languages are concerned. the dual system definitely prevailed during the period, 12th-14th century A. D. In Old Maithilī, the diphthongs -ai, au- were written as *ai* (ऐ), aï, ayi and *au* (औ), aü respectively : For examples, b*ai*sala, baïsala, bayisala 'sat' (VRC p. xl). In Old Awadhī also, aï and aü were used side by side with *ai* (ऐ) and *au* (औ), compare naï and n*ai*, haû and h*au* = Skt. nadī, aham. In -lahuḍā- beside -laüḍa, l*au*ḍi-, the dissyllabic pronunciation is also attested (UVP p. 7). Regarding Old Bengali orthography of -ai- and -au-, similar confusion had taken place. compare, OB jaüvana, j*au*tuka, t*ai*loe. c*au*, caü etc. (ODBL p. 343). But. final -ai- of verbs (calati>calaï) became a diphthongal vowel (cal*ai*) probably during 13th century in Bengali, to be simplified to the simple vowel -e- (cale) in 14th century ; and a form like khā-i, similarly became a diphthong kh*āi*. to be reduced to -khāy- in Late MB and NB (*ibid* p. 344).

From the orthographical point of view, the use of the diphthongal letters *-ai-* (ऐ) and *-au-* (औ) was never a general practice in Old Oṛiyā inscriptions. "The use of the symbols for *-au-* and *-ai-* (both diphthongs) is very rare in the inscriptions. The spelling *-au-* is rarely used in the tatsama word. 'G*au*ḍeśvara (lord of Gauḍa). More frequently it is represented as -au-, e.g., Gauḍesvara" (EOLS p. 94). Nevertheless, the use of *-ai-* letter in some *tadbhava* words suggests that the diphthongal nature of *-ai-*, and more in the final position, was emerging out [compare, saṇibār*ai*ṃ (A-8), post-positional affix -k*ai* (5. 11 etc. used eight times in *tbh.* words) beside -ke- (3. 10), barsak*ai* (9. 14), k*ai*na (49. 2 but -k*au*na- according to the reading of M. M. Chakravarty), amāb*ai* (12. 2) beside amābaï (14. 2, EOLS)].

On the other hand, the inscriptional materials further show that final -ai- of verbs in 3rd p. sg. (cf. Skt.calati>calaï) and some other contact-vowels have not become diphthongal vowels (i.e., cal*ai*) even during 16th century, though few instances of frequent occurrence indicate clearly that -ai- has turned into

a diphthong and as such underwent a harmonic change to -ei- or-oi- or, was weakened to -e-, -i- after contraction. For instances, O. Or. harai (13. 27 etc.) beside haroi (33. 9, 40. 16), har*ai* (20. 15) and hari (55. 13) ; karai (12. 8 etc.) beside karei (37. 4 according to M. M. Chakravarty) ; punei (Skt. paurṇamī, 13. 12) ; bhayiṇi beside bha(i)ṇi (1271 A. D. inscr. of Bhānudeva, OHRJ, Vol. I pt. 3) ; bhāyi (*ibid*) beside bhāi (9. 7) ; duyi (5. 20) beside dui (17.7 etc.) ; Besides the usual karai, kahai, dharai, laṅghai etc. in EOLS, the contracted forms are : hari (55. 13)<pkt. harai ; nuhe 'is not'<Skt. na asati from √as in subjunctive or, na bhūyate (19. 6) ; achi 'is' <pkt. acchai (19. 5 etc.) ; pāi 'gets' <pkt. pāvai (30. 5 etc.) ; also the post-positional affixes, -raī (1. 25) but -re (19. 6 etc.) ; -ṅkai (1. 10) but -ṅke (1. 16) ; -kai (4. 4. etc.) but -ke (3.10) etc.

From the above examples, the intermediate stage of diphthongisation between the stage of contact-vowel and that of contraction is presumably evinced. Moreover, the use of a new symbol ৈ- for -*āi*-(cf. p*āi*ba in 53. 13 of 16th c. A. D. also tul*āi*ba in 40. 12) should be taken into consideration so far as it represents the usual practice of pronouncing contact-vowel as diphthong.

In the Mahābhārata of Śāralādāsa and in other poetical literature of early times, the letters -*ai*- (ऐ) and -*au*- (औ) in non-final position are often seen to occur even in *tadbhava* words ; but if we examine this fact in the perspective of the practice prevailing in the orthography of the inscriptions and of that existing at present, it can easily be inferred that the medieval literature preferred the diphthongal letters, -*ai*- and -*au*- only to curtail a syllable of the dissyllabic -aī- and -aü- for the sake of metre, and that converseely, -*ai*- and -*au*- of *tatsama* words were represented sometimes as -aī and -aü- to gain an additional syllable also *metri causa*. To cite few examples, O. Or. saina (MBh B104) for Skt. sainya ; pauṭi, p*au*ṭi (MBh U56, 57) but compare p*ai*ṭi (1. 13 EOLS); m*au*ṛamaṇi (MBh U44) but mauṛamaṇi (MBh N6); daita (MBh B9), dayita (KhB p88) for Skt. daitya ; jautiśa (TB) but j*au*tiṣa (PP p21) ; *ai*brata (MBh B94 ; NC p49), aibrata (MBh B94), ayubrata (MBh B88, N15), ahibrata (RBh) ; näu (MP) but nahu (DR) ; bhaiṇī (JC), bhayeṇī, bhaeṇī (BA, RM) cf. bhayiṇi (1271 A. D. inscr.) ; baṃiśī (JC), baīśī (GBG, RM) but b*ai*ṃśī (GBG) ; jaintā beside jayantā (MBh U129) etc.

The above examples at least suggest first of all, that the letters -*ai*- and -*au*- in *tadbhava* words were not natural (just as in modern Oṛiyā) ; secondly, as it is seen from the interchangibility between -aī-, -aü- and -*ai*-, -*au*- respectively, that the contact-vowels in non-final position were not thoroughly converted to diphthongs and as such were possibly pronounced laxly as in modern Oṛiyā (note the pronounciation of Skt. k*ai*lāsa as kaīlāsa in Oṛiyā) which is revealed from the fact that -y- or -h- was often inserted between the vowels in contact to mark it off from a real diphthong.

Regarding the other combinations of vowels in early Oṛiyā, such as eu, oi, oe, āe, ia, ie etc., it may be presumed that the process of diphthongisation had not thoroughly invaded the domain of all contact-vowels. Though the metre itself suggests elsewhere that any group-vowel of two is dissyllabic in nature, a superfluous -y- or -h- has been inserted frequently ; for instances, O. Or. bhāyi (1271 A. D. inscr. of Bhānudeva) beside bhāi (9. 7, EOLS) ; duyi (5. 20) beside dui (17.7 etc., EOLS) ; kehuṇasi (RM p5), kehuṇi (NC p31), keuṇi (KhB p5) for Mod. Or. *kauṇ*asi (Skt. kaḥ punaḥ pkt. kevaṇa, Ap. kavaṇa) ; sabhāye (sabhāyām, MBh U43), icchāye (Skt. icchayā, BSAS) but rājāe (MBh U43, B109), kāe (Skt. kāye, MBh Sl. 22) ; bolāe (MBh B110) beside 3-syllabic bolāi for bolāe (MBh B110) ; poe (GBG, BGi) but loye (SSN p80) ; hoe (MBh Md. 17, also AKG) beside hoye (DR, RBh) ; iyāḷā-piyāḷā (ChG) beside iāḷā-piāḷā (MBh M4) ; cakoyā (RBR p45) beside cakoā (SSN p35) etc. But, on the other hand, the following examples indicate the diphthongal nature of the contact-vowels ; for examples, O. Or. dyanti 'they give' (3. 11, EOLS) ; dyiṅka (a contaminated form of dya and dia <Skt. deva ["An Oriya inscription from Indupur" by B. V. Nath *vide* OHRJ Vol. III pt. 3] not to mention such forms in MBh. as dyanti for dianti, nyanti for nianti, jyantā (MBh. B24) for jiantā, hvanti for huanti, jwāî for juāî etc. which may be contracted *metri causa*. Also dh*ai*bā for dhoibā (SC p69); h*au* beside hoi (Srijanga Stone Pillar Inscr. of 16th century, OHRJ Vol. VI pt. 4); h*au*ba for hoiba (16th c. Inscr. of Pratāparudra, OHRJ Vol. V. pt. 4) ; ekoiśa (SNG, p.25 Bh. i. p8) beside ek*au*śa (BSAS, 4th chānda Bh. i. p7) etc.

In Late Oṛiyā, the medial -ai- or -au- became diphthong, the final -ai, au- already being contracted to -e- or -i- and -u- respectively. The other combinations with high vowel following underwent the same process of diphthongisation. And as such there was no further necessity of retaining -y- to indicate the dissyllabic nature. The tendency was so thorough that even the glide -y- was not being inserted (The general practice of non-inserting W-glide from the very beginning had also an important role to play). On the other hand, the final -e- after long vowed -ā- viz., yāe, khāe etc., which along with other contact-vowels were dissyllabic in early Oṛiyā, became diphthongs, though the orthography remained unchanged unlike Bengali and Assamese (compare Or. khāe B. Ass. khāy <khāYe <khāe <khāai <Skt. khādati etc. where -y- came to the picture owing to the confusion of glide -Y- and its phonetic value -e.)

The Oṛiyā alphabet has letters only for the two diphthongs, a+i, a+u like other eastern languages, though they are not usually shown in orthography ; for examples, Or. khaïra (khadira), kaîtha (kapittha), kaüṛi (kapardikā), bhaüṇī (bhagiṇī) etc. Of course, the speech has other diphthongs like eu, ou, āi, āu, iu etc. which are shown in orthography by means of two seperate vowels.

Regarding the formation of diphthongs in modern Oṛiyā, it has already been discussed in the previous chapter that not all vowel-combinations form

diphthongs (see p. 48). In short, they may be categorised into four groups : (a) a vowel plus high vowel (b) any vowel (except -ā-) plus -e- (c) any vowel other than -a-, -ā- plus -a- or -ā- (d) similar vowel combinations like aa, āā, ii, uu etc. Out of such combinations, only vowel plus a high vowel and -ā- plus -e- in final position are liable to proper diphthongisation. But so far as Modern Oṛiyā is concerned, there is a sharp tendency in developing diphthongisation and subsequent contraction of the items (b) and (c) above, just as contraction of similar vowels in item (d) often takes place. In the standard colloquial pronunciation of Puri, one might often hear such contractions like -ua-> -o-, -ia, ie-> -e-, -iā-> -ā-, -ai-> -a-, -āe-> -e- etc. For examples, Or. honti for huanti (Skt. bhavanti), soẽ (Skt. svayam, *suayam), sopna (Skt. svapna, *suapna), ahya for ahia (Skt. avidhavā), de for diā (Skt. deva), goṭe for goṭie, āṅkara for i(h)āṅkara, anṭhā for aiṇṭhā (āmṛṣṭa), datya (Skt. daitya), thoke for thokāe, pile for pilāe etc. But the mutation of -āi, āu- to -e- through *āi after umlaut which is so natural in the standard colloquy of Bengali (cf. B. rāti> rāit> ret etc.) is foreign to Oṛiyā.

Furthermore, in some cases Oṛiyā diphthongs, -āi- and -āu- are often seen to be reduced to -ai and -au- respectively. This mutation may be ascribed to the rising nature of the diphthongs where the first component of the diphthong is raised by the predominant influence of following high vowel ; for examples, Or. mausi for māusi (Skt. mātṛṣvasā pkt. māussiā); aũṭhi for āṅguṭhi (Skt. aṅguṣṭhya.) airī for āhirī (Skt. ābhirī) ; aiṭhā (Skt. āmṛṣṭa) ; ailā 'came' but compare O. Or. āye (Skt. āyāti, RBh, RB p45, BA) ; pakhauja beside pakhāuja (Skt. pakṣātodya) cf. Mai. pakhāuja ; palau beside palāu (Skt. pala-) cf B. polāo ; -ṭhaũ (Skt. sthāma) compare Or. ṭhāba, ṭhāī, ṭhāẽ; dekhauci for dekhāuchi etc. Another interesting point is to be noted. It will be discussed later on that the earliest change of the contact-vowels in Oṛiyā is perhaps the change of -ai- to -ei-. But in Late Middle Oṛiyā down to Modern, a change of -āi- to -ei- is to be found almost universally (cf. haseibā, aṛhei, sateiśi etc.). That this change underwent an intermediate stage, -āi- to -ai- is to be surmised from the earlier orthography where the letter *-ai-* (ऎ) was used for -āi- ; for instances, O. Or. sat*ai*śa (SC pp.33,36) for mod. Or. satāiśa, sateiśi (pkt sattāviśa Ap. sattāisa) ; O. Or. aṭh*ai*śa (MBh Md. p. 28) for mod. Or. aṭhāiśa ; O. Or. aṛh*ai* (SC p33) for mod. Or. aṛhāi, aṛhei etc.

In Oṛiyā, loss of intervocal -h- is a recent phenomenon ; but diphthongisation of contact-vowels after loss of -h- is comparatively lax than Bengali and Assamese, viz., Or. bohu, bou. (Skt. vadhū), pahuñcibā/paũchibā (cf. pkt. pahuccai), dai (Skt. dadhi), saī (Skt. sakhī), pai (Skt. pradhi) etc.

With regard to diphthongisation, Assamese agrees more with Bengali than Oṛiyā in the following facts :

(a) The diphthongisation of the dissimilar vowels like a + i, a + u [ɔi, ɔu], viz., B. Ass. nai, jau (Skt. nadī, jatu), etc.

(b) The diphthongisation of the vowels juxtaposed with loss of the inter-vocal -h-. viz. B. Ass. dai, bou (Skt. dadhi, vadhū) etc.

(c) The tendency to stress the first member of the diphthong to make it a falling one and consequently, turning the final component to -y- = -e- <-ai-, viz., B. Ass. lay, khāy <Skt. labhati, khādati etc. ; B. Ass. khayer Or. khaira <Skt. khadira, cf. Mai. khairī, Bh. khayar.

(d) The contraction of -ai- and -au- to -ɔ-, written -a'- or, -a- in Assamese, whereas in Bengali -o-, viz., Ass. ca't, B. cot (Skt. caitra) ; Ass. ma'rā (Skt. mayūra, *maura, *maira) beside the alternative forms in Ass. *cait*, m*ai*rā etc. ; also compare B coddo Ass. c*ai*dhya (Skt. caturdaśa); Ass. bhanī B. bon (Skt. bhaginī) ; Ass. lanī B nanī (=noni) (Skt. navanīta) cf. Or. lahuṇi [*vide* FA ff 228, 244].

But there is a great contrast between Oṛiyā and Bengali-cum-Assamese in respect of the nature of diphthongs. First of all, only few diphthongs of Oṛiyā, viz., ai, au, āi, āu, ei, eu, āe (final), oi, ou are of falling nature like Bengali and Assamese. Secondly, diphthongs in Oṛiyā are more lax in pronunciation than Bengali and Assamese which is also perceptible in cases of -*ai*- and -*au*- seeming to be pronounced as -aĭ- and -aŭ- (compare the pronunciation of Skt. k*ai*lāsa as kailāsa and Skt. B*au*ddha as Baudha *vide* 'Oṛiā Bhāṣāra Itihāsa'' by Vināyaka Miśra). Thirdly, the contraction of -ai. and -au- to -ɔ-, o- in Assamese and-o- in Bengali in medial position is not usual in the colloquial pronunciation of Oṛiyā and as such they remain as diphthongs ; compare Or. cauda B coddo (Skt. caturdaśa) ; Or. caiti B cot (Skt. caitra) ; Or. bhauṇī Ass. bhanī B bon (Skt. bhaginī) ; Or. śeuḷa Ass. sa'l B sol (Skt. śakula) ; Or. maīṣa Ass. ma'h B moṣ (Skt. mahiṣa) etc. Lastly, Maithilī, Assamese and Bengali have developed in common a secondary diphthong in final syllable. viz., -āo-, -eo- <Late MIA āWa, eWa etc. For examples, Ass. chew (=sgo) <Skt. cheda ; khew (=khgo) <Skt. kṣepa ; lew (=lgo) <Skt. lepa etc. Mai. ghāo (Skt. ghāta), talāo (Skt. taḍāga), nāo (Skt. nāva), pāo (pāda) beside ghāba, talāba etc. B. nāo, kheo beside khei, lei, māo (Skt. mātā). bāo (Skt. bāta) etc. But Oṛiyā, in these cases, have preferred the raising of the final element and as such a diphthong with -o- as final member is never tolerated in Oṛiyā [with few exceptions, such as deo for dia (deva) etc. borrowed from elsewhere]. For examples : Oṛiyā talāu (Skt. taḍāga), bhāu (Skt. bhāva) cf. Mai. bhā H. bhāo 'price' ; tāu 'blaze' (Skt. tāpa, also in RB p83), O. Or. ghāu (Skt. ghāta, Rasakulyā) Mod. Or. ghā, O. Or. nau (Skt. nava, MP, MBh. D20) Mod. Or. naa etc.

In Bhojpurī, Maithilī and Old Awadhī, there is no such transformation like -ai-, -au- to open -e, ey- [ag:, age] or, -o-, ow- [ɔ:, ɔo] akin to -a-. in English -*hat*-, -*man*- or, -aw- in -*law*- respectively as found in Hindī and Rājasthānī (UVP p7). In Bhojpurī, the second element of the diphthong becomes weakened just like Bengali, forming diphthongs like -ay-, -aw- (Bengali ɔe, ɔo written

as -ay-, -ao-), viz., gail, baiṭhal (Ballia District), *gail*, *baiṭ*hal, gayl, bayṭhal (Benares District). Usually, Bhojpurī prefers diphthong in a word with stressed vowel following viz., maün but *mau*nī, caïta but *cai*tā (ODBH p.31) ; otherwise, -ai- and -au- are split into -a-i, a-u- in a manner which strongly resembles Modern Awadhī (Saksena : E. Aw ff 128).

Maithilī has generally preserved the diphthongs -ai- and -au- of MIA origin ; but the vowel-group -ā- + a vowel is retained with intervening hiatus unlike Bengali, Assamese and Oṛiyā (compare, Mai. khāe, māe Ass. B. khāy, Or. khāe, B. māy etc. <Skt. khādati, mātṛ). But Maithilī agrees with Oṛiyā in some other aspects. Oṛiyā and Maithilī -ai-, āi and -au-, āu are frequently seen to be originated from MIA aa, āa which obviously presuppose an intermediate stage of glidic intervention, i.e., aYa, āYa or, aWa, āWa. These proto-NIA forms like a(Y/W)a, ā(Y/W)a were transformed into -ai, au, āi, āu- in Oṛiyā and Maithilī alike (For sporadic instances of aYa, aWa>ai, au in Bengali, *see* ODBL p. 345). But Maithilī shows also -āg- and -ɔ- after further contraction. For examples, Mai. kauṛī, kauā, bhaurī, pairī = Or. kauṛi, kāu beside kuā, bhaûrī, payara etc. (Skt. kapardikā, kāka, bhramarī, pada) beside Mai. bāgra (Skt. vadara), rāgna (Skt. rajanī), lɔ:ṅa (Skt. lavaṅga), nɔ (nava), pāgra (Skt. pada), kāgtha (Skt. kāyastha) etc. (*vide* FM pp 95-96). Anyway, the contact-vowels in Maithilī in all cases cannot be said to form diphthongs and the MIA vowels continue in contact in this language (*ibid* p91).

However in most cases of Late MIA aWa, āWa, aYa, āYa, while Oṛiyā develops the secondary diphthongs after Sampraeāraṇa, often there is no trace of the intervocal glide but simply a vowel after contraction of the contact vowels leading to -a- and -ā- in Bengali and Assamese. For examples, Or. kauṛi, B. kaṛi, kaṛā, Ass. karā, kari (Skt. kapardikā) ; Or. lahuṇī B. nanī Ass. lanī (Skt. navanīta) ; Or. kau B. kai, Ass. kāwai (Skt. kavayī) ; Or. dauṛi B. daṛi (Skt. davara-) ; Or. mainā (Skt. madanikā, *maYana-) ; Or. mailā (Skt. mala- pkt. maila , mayala), Or. ṭhāî beside ṭhāba (Skt. sthāma pkt. ṭhāma Ap. ṭhāû, ṭhāu) cf. Or. post-positional affix -ṭhaû, ṭhû- etc.

In such cases as Late MIA awā, aYā, āWā, āYā, Bengali shows the same feature of contraction without having any vestige of the intervening glide, though sporadic instances show the earlier existence of the -W- glide only. On the contrary, Maithilī and Oṛiyā show Samprasāraṇa of the glides, -Y- and -W- leading to the development of secondary diphthong, though in Maithilī there is a further contraction of -aā- (<aYā, aWā) to -āg- and -ɔ- (FM ff 77) as above. With regard to Late MIA -aWā- Assamese disagrees with Bengali as it clearly shows the intervention of -W- glide with labial colouration of the preceding vowel (FA ff 241) ; for instances, Or. rakhuāḷa B rākhāl Ass. rākhowāl (Skt. rakṣāpāla) ; Or. kaṭuāḷa B koṭāl beside koṭoyāl Ass. koṭowāl (Skt. koṭṭapāla) ; Or. taruāḷa B taroyāl Ass. tarowāl (Skt. taravāri) ; compare also Or. chāi (Skt. chāyā pkt. chāa, *chāWa, *chāYa) cf. B. chāo Ass. chā ; Or. liā (<*lāi<lāYā <pkt. lāyā Skt. lājāḥ) etc.

In Oṛiyā, the vocalisation or Samprasāraṇa of the glides is far more widespread than that of any other eastern languages and hence, the formation of such secondary diphthongs as eu, ei, iu- etc. are numerous, for examples, Or. eei (Skt ceta, *ceYa), keuṭa (Skt. kaivarta), tiuṇa (Skt. temana-), śiuḷi (Skt. śaivāla) [*See* also under 'Contraction of Vowels In Contact'].

EXAMPLES OF DIPHTHONGISATION IN OṚIYĀ

MIA aī, aWi> Or. aï = *ai* :

Or. aïlā (āyāta-), baïṭhi (upaviṣṭa-) cf. Mai. bīgtha ; Or. thaïḷi 'bag' (sthavi-) cf. B. thali, Or naī (nadī), Or païṭha 'payment' (praviṣṭi), Or aïṇṭhā (āmṛṣṭa-) cf. Mai. ãiṭha, B. ẽṭo ; Or. khaïra (khadira) cf. Mai. khairī, khā Era, Bh. khayar B khayer Ass. khair ; Or. kaîṭha (kapittha) cf. Jn. kaviṭha Bh. kaïti Mod. Aw. kaïthā B. kayeth, kath- Ass. ka'th ; Or. daï (dadhi), naîbā (√nam-), maîṣa (mahiṣa), maïnā (madana-), saī (sakhi), paï (pradhi), maïlā (mala, pkt. mayala, maila) etc.

MIA aü, aWu> Or. aü = *au* :

Or. baüḷa (mukulaka, makūlaka-) B. baul, bol Mai. bauṛī Mod. Aw. baür ; Or. maüṛa (mukuṭa) Mod. Aw. maür Mai. mauṛa Bh. maür Mid. B. maüṛa ; Or. laüṛi (lakuṭa) O. Aw. laüḍa, lauḍī, lahuḍā Mai. lo:ṛā ; Or. caüṭhi (caturtha, *catuṣṭha) OB. cau- Bh. caüth B. cauṭhā Mai. cauṭha Ass. coṭh, ca'ṭhā (dina) ; Or. caüda (caturdaśa) O. Mai. caüdaha Mid. Aw. caudaha Aw. caudā Ass. caidhya, caudhay Bh. caüdah B. codda' ; Or. caüka 'square' (catuṣka) O. Aw. cauku Aw. cakkū Mai. caukā Bh. caükā Ass. cakī 'stool' B. cauki ; Or. kaüṛi (kapardikā), *kauṇasi* (kaḥ punar Ap. kavaṇa) ; gaüṛa (gopāla), caûri (cāmara), jaü (jatu), naüruṇī (*nakhaharaṇikā, nakha-kara), bhaüṇī (bhaginī) etc.

Late MIA -aYa āYa, -aWa, āWa- in some cases become -ai, āi- -au, āu- through Samprasāraṇa in Oṛiyā. In Bengali, it is a rare phenomenon ; whereas in Mai. the vowels after Samprasāraṇa, are susceptible to further contraction. For examples, Or. daüṛibā (drava-ḍa, *dauḍa) also B. dauṛ- Aw. daur-; Or. saütuṇī cf. Or. sābata (sapatnī pk. savattī) O. Aw. savati Jn. savati 'co-wife' Aw. sawati Mai. sautini B. satin Ass. satini Bh. sawati ; Or. kaüṛī (kapardikā pk. kavaḍḍiā) O. Aw. kawaḍā Aw. kauṛī Jn. kavaḍā OB. kavaṛī B. ka'ṛi Ass. kari Mai. kauṛī ; Or. kaü 'fish' (kavayī) B. kai Ass. kāwai Mai. kabai ; Or. saüā (sapāda, pk. savāyā) Jn. savā Mai. sabā Bh. sawā, sawāī, sawaïyā B. saoyā ; Or. sāûḷā 'tender' (śyāmala pk. sāmala) O. Mar. sā:vaḷa Jn. sāula, sāvalā Mai. sāmara, so:ra, saura, Bh. sā:war Mid B. śāñal ; Or. āu 'and' (api to Hoernle, apara to Turner), cf. Nep. au, B. -ō- O. Mai. a(=o:) au, u, o(VN 14a) ao(R. 86) Aw. uahu Mid Aw. ohī ; Or. pakhāuja (*pakṣāvādya. pakṣātodya pk. pakhāujja) Mid. B. pākhāju NB pākhāj Mai. pakhāuja Ass. pakhowāj also B. pākhoyāj ; Or. gaüṛa (gopa-la), nāuri 'boatman' (*nāvadārika, *nāva-kara ?) Or. dāuṇi (dāmanī); O. Or. bāuna (Bh. i, p. 44), bābana (BA) Mod. Or. bāna (dvāpañcāśat) ; *kauṇasi* (kaḥ punaḥ Ap kavaṇu); Or. daürj (davarikā) cf. B. da'ṛi.

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For examples of Or. ai, āi <Late MIA aYa, āYa : Or. mainā (madana), mailā (pkt. mayala), naîbā (cf. namati), saî 'fast breathing due to exhaustions' (śrama), bāi (vāda), rāi (rāva), chāi (chāyā) etc. (*see* also under 'Contraction of Vowels In Contact)'.

CHAPTER VII

CONTRACTION OF VOWELS IN CONTACT

Contraction of OIA vowels in contact seems to be a well established tendency in Late MIA. Although Apabhraṃśa literature attests to its operation from the 10th century A.D., its beginning may be still earlier (for similar examples in other MIA dialects *see* Pischel : GK ff 165-168; Tagare : HGA ff 31-32). But Dr. Tagare is of opinion that coalescence of pen-ultimate and final vowels after loss of intervocalic consonant is more marked in Eastern Apabhraṃśa than elsewhere (HGA ff 21). Nevertheless, all the NIA languages have inherited some of such contracted forms and Oṛiyā is not an exception, for examples : Or. pāika (padātika, pk. pāikka), andhāra (andhakāra, pk. andhāra), āra (apara, Amg. āra), beside Or. āhuri, khāe (khādati, Ap. khāai, khāi), dhāe (dhāvati, pk. dhāvai, dhāi), rāuta (rājaputra Mg. lāutta), deuḷa (devakula, pk, deula), khāu (khādatu pk. khāu), cobiśa beside O.Or.cābiśa (caturviṁśati pk. covisa, covīsa beside cauvīsaha), etc.

Below are noted the peculiar features of the eastern languages for the sake of contrast to the general trends :

(i) The vowel-group -aa- in the eastern languages is generally contracted to -a-, but the length of quantity i.e., -a:- (=ɔ:) is audible in Maithilī and Oṛiyā only. Bhojpurī shows a glidic intervention i.e., aw(a) whereas in Bengali there is a usual contraction of -aa- to -a- (rarely -ā-), though a glide develops finally (compare, Or. naa, na' B. nay, but na- in compounds, Mai. nɔ Bh. naw Ass na). But in Oṛiyā hiatus is preserved in many cases.

Similarly, the contraction of -āā, aā- to -ā-, -ii, iī, īi, īī- to -i, -ī and -uu , uū, ūu, ūū- to -u, ū- is a common feature of all the eastern languages. But in Oṛiyā the same hiatus is seen to be maintained in many words though in colloquial pronunciation, a long variety of the contracted vowel is often preferred. In rare cases the contraction of -uu- to -o- is available in Maithilī and Bengali.

(ii) The contact of vowels in Bhojpurī, Maithilī and Awadhī is often arrested by the retention of intervocalic -h-; but the elision of inetervocalic -h- is more progressive in Bengali and Assamese and in the standard colloquy of Orissa, especially in the dialects of Balasore. Notwithstanding, the retention is to be seen more extensively in Oṛiyā than Bengali and Assamese as it is rooted in the trend of a new development of h-glide.

(iii) In many words of *tadbhava* origin common to the eastern languages, long vowels (but conspicuous only in the case of -ā-) resutling from the contraction of vowels are seen to be shortened due to shift of accent to a long syllable preceding or following—a pan-Indian system of stress which was operative in the earlier history of the eastern languages.

(iv) *Samprasrāaṇa* of liabial and palatal glides found in Late MIA seems to be a general practice of the neo-Māgadhan languages. Few instances to be found sporadically in the Apabhraṃśa literature show that the intervocalic -W- was

vocalised to -u- or, become a plosive -b-, for examples, Ap. cauriya <* camarika, camarī; kheuṁ < kṣema, or, ṭhāba < sthāman; nibesi < nimiṣya; ṇāu < nāma etc. *vide* HGA. Of the later Māgadhan languages Oṛiyā and Maithilī have much affinity in this respect. Moreover, the development of -b- from -W-glide is shared by both the languages, though in Oṛiyā the tendency is fairly conspicuous by its permeability almost in all the positions and combinations. The contraction of the vowels after *Samprasāraṇa* is effected particularly in Maithilī, though in final position it is also to be observed in Awadhī and Bhojpuri. In Bengali usually there is no trace of the -W-glide and as such there is a mere contraction of the adjacent vowels. Assamese follows the trend of Bengali, but in many cases, the influence of the labial glide is noticeable. A comparative treatment is shown below :

(a) Late MIA aWa : Or. au, ua, aba; B. a, rarely ā, -o-, ay (finally); Ass. ɔ, a; Mai. aba, au, ɔ, ā, ae, o (finally); Bh. aw(a), ō (finally); Aw, aw, au.

(b) Late MIA aWā : Or. uā from earlier oā, B ā, sporadically oyā; Ass. owā, sometimes -ā-; Mai au, ɔ:, abā; Bh Aw awā; Bh Aw o (finally) < uā;

(c) Late MIA āWa : Or. āu, āba; B ā, āo (finally); Ass. ā(u), āo (finally) Bh Aw āwa (medially), āu (finally); Mai au, ɔ:, ao, āba;

(d) Late MIA āWe : O. Or. ābe Mod. Or. āe; OMai. āwa (cf. gāwa 'sings' paṛhāwa, VRC), early Mai. āwe (cf. dhāwe 'runs' *vide* FM p.481); Mod. Mai. āe; B Ass āy.

(e) Late MIA aWi : Or. oi B u, i, ui but ai elsewhere.

(f) Late MIA iWa, iWi : Or. iu, u beside -ia-; Mai i, yu, u, yɔ:, ɔ: B i, ia>io (cf. B jian, jion < jīvana); Ass eo, i.

(g) Late MIA eWa : Or. eu, eba (cf. Oṛ. kebaṇa, keuṇi (*see* p. 7-9); Mai. eba, eo(finally); B e, eo Ass eo Bh Aw ewa;

(h) Late MIA aya, āya : Or. ai, āi; Mai. aɛ, āɛ; B ay and ā, āi (finally); Ass ai, āi Bh ay(a), ai and āī.

(v) The Contact-vowel -ai- is reduced to -e- after contraction in all the eastern languages. The contraction of -ai- to -e- was noticed even in Prākrit [cf. Pkt. kela<kadala, esa<aisa etc. *vide* Pischel : GK ff 166, Tagare : HGA ff 31(i)]. But in the earlier documents of the eastern languages, -ai- is seen to be preserved either as diphthong or simply as a contact-vowel, though contraction was not unusual, especially in the final position (*see* also 'Diphthongisation of Vowels In Contact'). In the modern eastern languages, the change -ai- to -e- is customary, though the retention of -ai- as diphthong is not infrequent. The change of -ai- >aa in OB and -ai->-a- in OAw is peculiar.

With regard to -āi-, the contact-vowel remains as diphthong in all the eastern languages, but there is a further contraction of -āi- to -ā, e- in Bengali and -aɛ, āɛ- in Maithilī (FM ff 77, 79).

The mutation of final -ai- to -i- instead of expected -e- (excepting Aw ai) in some numerals, verbs and pronominal forms of frequent uses is met with here and

there in the eastern languages; but the tendency is proved to be old (cf. Skt. pañcaviṁśati pkt. pāciśa OMai paciśa Mai pacīsa, paccīsa, Or. paciśa B pā'ciś Bh pacīs etc.). The change of -āi to -i- is debatable as no cognate is found for attestation and as such it is restricted only to Oṛiyā.

Some verbal forms in Bengali, Assamese and Oṛiyā show the change of -ai, āi- to -a, ā- respeclvely in medial position (cf. √bas- 'to sit' <upaviś, √ās- 'to come' <āviś etc.) though, in case of Bengali, it is restricted only to the modern usage.

(vi) The change of the group-vowel -au- to -o-, noticed also in Prākrit [cf. Pkt. mora<mayūra, coddaha<caturdaśa *vide* GK ff 166, HGA ff 31(2)] was not fruitful in the eastern languages (for the instances in Old Oṛiyā *see* under 'Diphthongisation of Vowels In Contact'). In the standard pronunciation of Bengali the change -au- to -o- is habitual; but in the other eastern languages, -au- developed usually into a diphthong from earlier -aü-. But sporadic instances are not rare in Maithilī (dialectal) and Assamese where -au- has become -o-. It seems that Bengali, Assamese and Oṛiyā share this tendency better than the Bihārī languages.

In case of -āu-, the diphthongal nature is well preserved, though in Bengali there are further changes of āu>* āi> ā, e (cf. OBDL pp. 350-351).

The change of -au- to -u- and -āu- to -u- through *-au- is a general practice in the eastern languages, the history of which may be traced back to MIA (cf. Skt. ardha *tūrtha Ap. āhuṭṭha; Skt. ekonaviṁśati Pkt. eguṇavisaṁ, auṇavisaṁ Bh onais, anais B uniś Mai unaiś Ass unaich etc.). The tendency is more apparent in final position (except Aw au).

The change -au- to -eu- is seen to occur in Oṛiyā and elsewhere but the change is also to be observed in Prākrit (cf. Skt. nakula pkt. ṇeula etc.).

(vii) Late MIA ia had a threefold treatment in the eastern languages :

(a) In initial and medial syllables, -ia->-e- while -iā- is retained, but in Bengali there is sometimes further contraction of -iā- to -e-.

(b) Final and medial -ia, iā-> i,ī.

(c) -ia->Or. ya, a (and even yā, ā< iā); Mai yɔ:, ɔ:; B io, aɡo, o; Ass ɡo

In addition, Oṛiyā has preserved the group-vowel -ia- (cf. ghia, diara etc).

(viii) In Apabhraṁśa few instances are available where -ua, uā- are contracted to -o- (cf. Ap. soṇṇāra<suvarṇakāra, popphala<pūgaphala etc. *vide* HGA ff 32). But most of the eastern languages show the contraction of -ua- to -u-. In few cases the mutation of -ua- to -o- is found, but they may be explained otherwise, for examples, OMai OAw sondha Aw sõdh Mai Bh sonh Ass sond(h)ā Or. sundha or, Mai B sonā Or sunā, or, Mai śohara O. Or ṣohaṛa are derived not from Skt. sugandha, suvarṇa, sukhakara respectively, but from saugandhya-, sauvarṇya, śobhana (Pkt. *sohaṇa, sohala proto-Or. *sohaṇa, *sohaḷa) in which cases the

line of development is : Pkt. oa>-o- in all the neo-Māgadhan languages, beside -ua- and -u- in Oṛiyā. In fact, the group-vowel -ua- (<pkt. ua, oa) is abundant in Oṛiyā.

(ix) The contact-vowel -ea- of Late MIA turns into -e- usually in the eastern languages, but in modern Oṛiyā, -ea- becomes -ia- (cf. Mai. yɔ) in most cases. In old Oṛiyā the earlier retention of -ea- is attested . On the other hand, Oṛiyā has preserved the vowel-combination -eu- which has changed to -i-<-iu- in Bengali and -ia, io- in Assamese.

(x) Late MIA -oa- has become -o- in the eastern languages, but in modern Oṛiyā -oa- is changed to -ua. In old Oṛiyā and Maithilī, the retention of -oa- is attested (cf. Mai. poa Or. pua Skt. pota).

To state briefly, Oṛiyā shows the following phonological peculiarities :

(i) Loss of length of the contracted vowels, short or long, of the *tadbhava* words due to shift of accent following the Late MIA or Neo-Māgadhan stress system.

(ii) Retention of vowel-groups like aa, āā, ia, ua in all positions.

(iii) Development of -h-glide as well as the elision of intervocalic -h- in colloquial pronunciation.

(iv) Development of -b- from -W-glide as well as the *Samprasāraṇa* of -W-glide to -u- like Maithilī.

(v) Metathesis of such vowel-groups as -āu- to -uā-, -āi- to -iā-, -ei- to -ie-, especially in final syllable. (*see* pp. 75, 79).

(vi) Shortening of long diphthongs, viz., āu>au, āi>ai (*see* also pp. 56, 75).

(vii) Mutation of vowel-groups, e.g., -ea->-ia- (cf. Mai yɔ, compare Skt. devara Or diara Mai dyɔra) and -oa->-ua- in all positions instead of -e- and -o- respectively in the other eastern languages. Also lowering of -o- as final component of diphthongs, ao, āo>au, āu etc.

(viii) The change of -ai, āi- to -ei- to be traced back even to early Oṛiyā.

(ix) Special contraction of ia>ya>a (also in Mai); ia>yā>ā (*see* p. 77); ua>wa (in O. Or. cf. p. 80); oe>ue>we>e (cf. hoilā=helā etc.); iu>yu>u (also in Mai); ai>i (also in other eastern languages); āi>i.

(x) Other noteworthy assimilatory changes like ou, au>eu; āi>āā; ai>oi etc. and some peculiar formations, viz., hoilā/helā (p. 81), yibā, (p. 75), kalā, galā, malā (p. 71).

Before entering into the discussion of phonological developments of Oṛiyā vowels in contact in detail, it would be better to elucidate the nature of Oṛiyā vowels. There are six vowels in Oṛiyā, viz., a(=ɔ), ā, i, u, e, o. In the dialectal pronunciation current in the district of Balasore, there is an additional vowel -ɛ- developed sometimes from -e-. The indeterminate vowel -ɔ- seems to develop in an unaccented syllable as in the pronunciation of sahɔja, pathɔra etc. In modern Oṛiyā almost all the vowels (i.e. a, ā, i, u) may be pronounced long.

The length of the vowels is not shown in orthography. But if it is at all shown, it is shown with the similar vowels placed side by side (compare Or. ka'ṇa-/kaaṇa, gā̃:'/gāā̃:, piibā, suukā etc.). Though not always, the length often shows semantic change (cf. yibā 'to go' : jiibā 'to live', nā 'not' : nāā 'a boat' etc.). Generally the length of the vowels resulted from the contraction of the vowels of similar nature in contact. Assuredly in early Oṛiyā, the similar vowels in contact were pronounced with or without any hiatus-tilger or with a quantity of longer variety after contraction. Of course, this state of affairs of dropping off the glide Y/W or Skt. y/v leading presumably to the lengthening of vowel prevailed not in a less degree in Late Pkt. (cf. Ap rasāna=rasāyana, palāṇa<palāyana, indi<indriya, cakkāa<cakravāka, talāra<talavāra). That the contact-vowels of different quality did not undergo a thorough diphthongisation has already been discussed in the previous chapter and in this perspective it may also be presumed that in early Oṛiyā the similar vowels in contact remained in hiatus side by side with the contracted ones from which the modern tendency of lengthening a contracted single vowel evolved. The hypothesis is deduced from the following facts derived from early Oṛiyā :

(a) Contraction or non-contraction of vowel-groups (aa, āa, āā) after elision of Skt. y/v or Late MIA glide Y/W.

(i) Elision of Skt. y/v : O.Or. āla (ālaya, GBG), āpyāna (āpyāyana, CM v), sampradā (sampradāya, EOLS, GBG), adhyāna (adhyayana, BGi), bābya (bāyavya, GBG), adhyā (adhyāya, BGi, AKG), prāścitta (prāyaścitta, MP), Narāṇa (Nārāyaṇa, EOLS 48·6) O.Or. amāsyā (amāvasyā, MM, GBG), upāsa (upavāsa, Bh), asara (avasara, L. p100).

(ii) Elision of glide Y|W : O.Or, bāstari (MP,SS, MBh D123)/bāāstari (RBR p. 72, MBh D106) (dvāsaptati Pkt. bāhattari) O.Or. khānti-khāanti (MBh D45) cobānti-cobāanti (MBh G6, K29, K27), pānti-pāānti (MBh B39), paḷānti-paḷāanti/paḷāyanti (MBh B35, 47), O.Or. aṭhāaśī (MBh D5) but ekāśī (Kh B p. 9); bolānti -bolanti (MBh U 119)/bolābanti (MBh B60)/bolāanti (MBh B52), 'naa '9' but cha, '6', (cf. chaa, MP. ChG, chaastarī SS), naara, bibhaa (EOLS), sāanta, nāā, gāā (EOLS); note also modern Or.aā̃ḷā, ā̃'ḷā (āmalaka) for O. Or. ayêḷā (MBh, GBG), aêḷā (MBh U 99, Md 56).

(b) Insertion of an extra vowel to denote length : O.Or. bāsaṭhi (BA)/bāāsaṭhi (MBh D54) (Skt. dvāṣaṣṭi-, pkt. bāsaṭṭhi), kāā̃:sā bāā̃:sā (MP), māā̃:sa (MP) beside māêsa (JBh, GBG, PP), māyeṃsa (GBG) for modern Or. māûsa (māṃsa), śāyantanu (śāntanu, MBh B88); O.Or māāpi for māpi 'having measured' (<mā, EOLS 18A.10) yānti/yāānti (MBh)<Skt. yānti.

Note also the lengthening of vowel, particularly when nasalised, in modern Oṛiyā, viz, or bāā̃:ceibā 'to deceive' (vañc-), ḍāā̃:sa 'a blood-sucking insect' (daṃṣa) cf. B. ḍā̃:s etc.

(c) Insertion of -h-glide to denote the extension of length : O.Or. rahasa (rasa, JC), rāhāsa (rāsa, PBG) śāhāstra (śāstra, BGi), śahasra (MM), sasra (BGi) (śastra), mahaḷa (mala) etc., (*see* also pp. 50-52).

VOWELS IN CONTACT IN MIA

(i) *Treatment of MIA -aa-* :

The group- aa- of LateMIA was contracted to -a- (ɔ) or, ā in Bengali and Oṛiyā ; -ay (finally) and rarely -o- <au<aWa in Bengali and Assamese ; and to a(ɔ, a) in Assamese and -a- (a, ɔ:) in Maithilī but awa in Bhojpurī; for examples,

Or. laṅga 'clove' (lavaṅga pk lavaṅga) B. laṅ Ass. laṅ Mai. laṅa, lɔ:ṅa; Or. kalarā 'a vegetable' (kāravallī, kāravella-) B. karalā, karelā; Or. karata 'a saw' (karapatra-pk. karapatta-) B. karāt, Ass. karat; Or. na beside naa(nava) Bh. naw Mai. nɔ; O.Or kacha (kacchapa pk. kacchawa) (BNG 9th ch.) Or. āra(apara- pk. avara), cha beside chaa(ṣaṣ-) āḷā beside O.Or. aāḷā, aêḷā(āmalaka-) Mai. ɔ:rā, arā ārā Bh. awārā ; O.Or baḷā(valaya inscr.) O.Or daḷāi (dalapati ChG) cf B. dalui.

But in most cases the group -aa- in Oṛiyā is retained as in OB. or, is lengthened in quantity (i.e., ɔ:) viz., Or. kaāḷa (komala- pk. komala-) Jn. kovalā Ass. *s/s.* kumlīyā; Or. kaaṇa beside ka'ṇa, kauṇasi (kaḥ punaḥ pk. kopana- Ap. kavaṇu 'who') Jn kavaṇa, koṇa, koṇha O.Aw. kavaṇa Ass. kon B. kon<kaun); Or. bhaāra (bhramara- pk. bhamara) Mid. Aw. bhavāra (Jāyasī) Mai. bhamharā Bh. bhawārā, bhāwrā Ass. B. bhomrā; Or. Śaara 'a tribe (Śavara); Or. caāra (cāmara pk. cāmara) Mai. cara, cɔ:ra Bh. cãwãr, cãwar Ass. cõwar ; O.Or, chaa (MP. ChG) cha (EOLS, 6.6, 17·8) Mod. Or. chaa, cha' (cf. ṣaṭ, kṣɪṭ, kṣvaṭ pk. cha Ap. chaha) Jn sāhā OMai. chahu, chao Mai. chɔ B. chay Mod. Aw. chā Bh. chaw Ass. chay, cha- in compds.; Or. jaa 'barley' (yava-pk. java) B. jau, ja Ass. ja-dhān Bi. jau; O.Or. naa (EOLS 7·14, 7.31) Mod. Or. naa, na' (nava pk. ṇava) O.B. naa B. nay O.Mai. nawe, nawa Mai. nɔ O.Mar. naū Bh. naw Ass. na; Or. chaastari '76' (cf. ṣaṭsaptati- pk. chāvattariṃ) B. chiyātta'r ; Or. aāḷā (āmalaka), O.Or. naara (nagara, EOLS p. 99), O.Or *s/s.* bibhaa (vibhava, EOLS 24·4) [*see* also pp. 3-4 for the treatment of final -aa-].

In few cases, Late MIA -aWa- developed into -aba- in Oriyā like Maithilī, viz., or. nabara beside naara (nagara, also in MP., EOLS); Or. *s/s.* bhādraba (also in MP) beside bhādua (bhādrapada) cf. Mai bhādaba Or. labaṇī (also BGi etc.) beside lahuṇi (navanīta), Or. Gāgraba (Gārgeya, GBG).

MIA aha becomes Or. -a- after contraction in final position; but in medial position, the tendency is to retain it. In Bengali, the contracted form is -a, ō- in interior and final syllables. Bh. Mai. and Aw. have retained -h- finally. In Assamese, the treatment is same as in Bengali, but there are some cases where the final -ha- is preserved by metathesis (*see* pp. 3-4).

In some cases medial -h- is retained in Oṛiyā but it has influenced the adjacent vowel -a- to be changed to -u- through -o-; for examples, Or. nahuruṇi 'a nail-cutter' (nakha-haraṇikā cf. ODBL p. 553 but to Turner nakha-kara) Bh. nahar(a) ni B. narun Ass. naraṇī; O.Or nohe (ChG, BhJ) but nahe (NC p. 20) Mod. Or. nuhe (na-asati) 'is not' O.Mar. nohe, navhe B. nay. (*see* also pp. 18, 19).

In some causative and denominative verbs, Oṛiyā usually shows the change of -a- into -u- which presupposes an intermediate stage of -o- (cf. nohe:nuhe) viz., Or. kahibā but causative kuhāibā, rahibā but ruhāibā, pahaṛa but denominative pahuṛibā. The modification is further strengthened when Or. -a- is in between the labials and -h- (for the treatment of -a- after p, b, m *see* p. 18). In these cases, it is very difficult to ascertain whether the raising of the vowel is due to the labial sound or -h-, viz., pohaḷa (pravāla-), bohu(vadhū) bohibā(vah-).

The cases of retention of interior -h-, especially developed as a glide, are found numerously. Besides the above examples, we have Or. pahaṛa (prahara) Ass. para ; āhuḷi(ākula-), āhuri(apara-) B.ār Ass. āru, ār ; śaha(śata) B. Ass.śa ; ahia (avidhavā pk. avihaa) B. eyo Mid B aiha ; gahama(godhūma) B. gam.

The loss of interior -h- is gaining importance in modern Or. (especially, in Balasore dialect) viz., boita(vahitra) cf. O.Or bohita (JC, CM. i, 31) bou(vadhū) yāku for ihāku (eṣa-) Or soḷa O.Or sohaḷa (MBh) soḷaha (MP); compare also kṣauṇī for akṣauhiṇī (MBh D. etc), sasra for sahasra (*ibid*) duiṇī for duhitā (MBh Md.) ; O.Or samehā 'a representative' (BA) Mod. Or chāmuā (sammukha-) also Mod Or. chāmu 'in front'; O.Or egāraha (MP) Mod. Or ogāra, O.Or chatiśaha (MP). Or chatiśa (ekādaśa, saṭtriṃśat).

MIA aWa shows a peculiar phonetic tendency in Oṛiyā from earlier times. The sound group -aWa- in final syllables become -ō- in Bhojpurī and Maithilī; but in medial position Mai. shows ɔ, au, aba while Bh. -aw-. Bengali has -a- like Ass. in medial position usually, and -ō- sporadically in final syllables. Awadhīalso shows -aw-and -au. But in Or. it is -au- beside -aba- (<aWa) like Mai. and sometimes -ua- in such positions. In Ass. Late MIA aWa in interior and final syllables becomes -a- (ɔ, a).

Examples of Late MIA aWa>Or. au in pre-accentual or post-accentual syllables : Or. kauṛī (kapardikā pk. kavaḍḍiā) O. Aw. kawaḍā Mod. Aw. kauṛī Jn kavaḍā OB kavaṛī B ka'ṛi Mai. kauṛī Ass. kaṛi; Or. kauṇasi (kaḥ punaḥ pk. kovaṇa Ap. kavaṇu) Jn. kavaṇa, koṇa O. Aw. kavaṇa Aw. kaun B. kon ; O. Or ābara, āūra (EOLS) Mod. Or. āhuri (apara-pk. avara) OAw. āwara Mid. Aw aur Aw. aur O.Mai. aora, āora, awara, āwara Mid. Mai. aru Mai. āra, ɔra, āora-, ōra OB. avara Mid. B. āyara B. ār Bh. āwaru, aurī Ass. āru ār; Or. bhaûrī fem. of bhaāra (bhramara, bhramarī) Mai. bhaurī; O.Or. labaṇī (Gopībhāṣā etc.) Mod. Or. lahuṇi (navanīta pk. ṇavaṇīa) Jn loṇī Mai. nenu, Mod. Aw nainū Ass. lawanu, la'nī B. na'nī; O.Or. sābata but Mod Or. sautuṇī (sapatnī pk. savattī) O.Aw. savati Jn savati Aw. sawati Mai. sautini, sɔ:ta B. sat, satin Ass. satini Bh. sawati; O.Or nau '9' (nava, MP) B. nay, na-in compds. Or. dauṛi 'a rope' (late Skt. davara pk. davara) Jn. dorā, dorī Mod. Aw. ḍōrā Mai. dorara, ḍorā Ass. ḍor, ḍol Bh. ḍori B. daṛi.

Examples of Late MIA aWa>Or. ua in post-accentual syllables : Or. bhādua (bhādrapada- pk. bhaddavaa) cf. bhādraba (also MP) B. bhādṛ Ass bhāda Mai. bhādaba Bh. bhādō Aw. bhādaû; Or. kādua, kāda (kardama, *kaddaWa)

O.Mai kādawa Mid. Aw kā:dau (Jāyasi) Bh. kānō < *kannaWā Mai. kādō, kādaba B. kādā, kādō; Or. śiśu, siśuā' a kind of tree' (śiṁsapā pk. sīsavā) Ass. B. śiśu cf. Mar. śīsav Nep. sisau.

Late MIA aYa in medial and find position> -ai- in Oṛiyā, ay(a), ai in Bhojpurī, and -ai- in Ass. but -ag, āg -in Mai. (cf. jag for jaya, bagra for vadara, rāgna for rajanī etc.) and -ay-(oe) in Bengali. For examples, Or. mainā' a bird' (madana-) B. maynā Bh. may(a)nā Ass. mainā; Or. mailā 'dirt' (pk. mayala, maïla) B. maylā Ass. mailā Bh. mail; Or. naîbā 'to bend' (cf. namati pk. namai,* naYāi). Or. saî 'deep breathing in exhaustion' (śrama, *saYā).

The earlier stage of -ai- i.e., -aya- is found in few examples, such as, Or. bāyā, bāi 'whims' (vāyu) Or. dayaṇā, 'a kind of flower' (damanaka- *daWāna, daYāna) B. donā Ass. damanā; O.Or. kaṇaya (kanaka) (MBh B. p. 97) Mid. Mai. kanaya Ass. kanayā 'gold'; compare also O.Or. jaintā beside jayantā (MBh U. p129); aibrata, (B. p 94) beside ayabrata (B. p. 88); O.Or. śayaḷa for *saïla (śaila, UBh.); O.Or. rayaṇī (rajanī, RM 24th ch.); O.Or Mayāṇa (Madana, RM 54 etc.); O.Or *sls.* mayemattā (madamatta, BGP. p. 150).

(ii) *Treatment of Late MIA aā, āa, āā* :

The groups with intervening glide -W-, -Y- in Late MIA became -ā- in Oṛiyā like other eastern languages.

The group aā, āa, -āā- : Examples, O.Or. nuāri 'new' (navākāra, Bh. i, 67). Or. camāra (carmakāra pk. cammāra) Mai. camarā, Bh. Aw. camār B. cāmār Ass. camār; Or. bāḷiā 'a kind of fish' (vaḍāla, *vaālia) B. boyāl Mai. boāra; Or. baṇijāra (NC 29) 'a merchant' (vāṇijyakāra) Or. suāra 'a cook' (sūpakāra) Or. andhāra (andhakāra, andhaāra) OB andhāri B. ā:dhār Mai. andhārī Mai. anhāra O.Aw. ādhārî Mod. Aw anhāri Jn āndhāra Ass āndhār, endhār Bh. anhār; Or. khumbhāra 'potter' (kumbhakāra pk. khumbhaāra, khumbhāra) Mod. Aw kûbhār, kumhār Mai. kumhāra Ass. kumār B. kumār, kōyār Bh. kumhār, kohār; Or. khambhāra (*skambhākāra, cf. pk. kambha) Mai. khamhāru, B khāmār; Or. gamāra, gûāra 'rustic' (grāmadāra Pā. gāmadārako) Aw. gāwār B gōyār; Or. guhāri 'request' (goha-kāraikā, *vide* UVP) O. Aw. gohāri OB guhāṛa Mid. B. gohāra Ass. Bh. gohāri (Tewari: ODBH. p. 113); Or. duhāra (dhruvakāra) B dohār; Or. upāsa (upavāsa) Bh. B upās also B upos Mai. upāsa; also Or. pārā (pārāvata, pārada), pāe (pk. pāvai), bandhāe (*bandhāpayati pk. bandhāvai), yāu 'let (him) go' (yāyatu), diāḷi (dīpāvalī); O.Or. muhā:sa 'attraction' (mohapāśa RM 57 etc.); O.Or. juāra (BGi) mod. Or. juārī, 'a gambler' (dyūtakāra-) O.Or. khaṇḍāsa 'a sword' (khaṇḍapāśa, ChG.).

In some cases, the contracted -ā- is shortened to -a- due to loss of accent, viz., Or. ākharā (akṣavāṭa) Bh. akharā, ākhrā Ass. ākhrā Jn ākhāḍā B. ākhrā; Or. āḷā beside aāḷā O.Or. aêḷā (āmalaka); koṭharī (koṣṭha-gṛha), kalā 'did' (kṛta-alla?), malā 'died' (mṛta-alla?); Or. ālaṭa (ālāvarta) 'a big fan'.

The combinations of āa, -āā- are usually tolerated in Oṛiyā though āā often becomes -ā:- in rapid pronunciation in contradistinction to other eastern languages: viz., Or. nāā: (nāman- also in EOLS) gāā: (grāma- also in EOLS) ghāa

(ghāta-) yāānti 'they go' (yānti) pāānti (prāpnuvanti) yāā:ḷā "twin" (yāmalau) thāānti (tiṣṭhanti) yāā (yātṛ) B. jā; māā(mātṛ) māara (mātaraḥ) chāā beside chuā (śāvaka) pāa nāhi 'do not get' (prāp-) O.Or. (inscr) gāaṇa (gāyana) sāanta (sāmanta) nāā (nāvā) *vide* EOLS.

The group -aWā- : the un-accented -awā- becomes -uā- in Oṛiyā, ā and rarely oyā in Bengali, owā, (ā) in Ass. -au, ɔ:, abā in Mai. and awā in Bh. and Aw; for examples, O.Or daṇḍoāsi (daṇḍapāśi) 'village tax' (EOLS, 30·4); O.Or. koṭoyāḷa beside kaṭuāḷa (MBh. N. p. 12) (koṣṭhapāla, koṭṭapāla, koṭṭavāla) Ass. koṭowāl Bh. kotwāl Mai. koṭabāra B koṭāl; Or. rakhuāḷa (rakṣāpāla, rakkhavāla) Mai. rakhabāra Bh. rakhwār(a), rakhawār Ass. rākhowāl B. rākhāl Mid B. rākhaāl; Or. matuāḷa also mātāla (lw. B?) (mattapāla) Bh. matwāl(a) Ass. mataliyā B. mātāl ; Or. taruāḷa (taravāri-) B. taroyāl Bh. tarawāri Ass tarowāl ; Or. cānduā (candrātapa) Mai. cādoā Ass. cāndowār, candār B. cā:doyā Mid. B. cāndoyā (Nārāyaṇa Deva); Or. kādua (kardama-ka) O. Mai. kādawa Mai. kādō, kādabā B. kādā, kādo Mid Aw. kādau (Jāyasi) Bh. kānō; O. Or. ghaṭuāḷa (ghaṭṭapāla, RK 7th ch. stanza 7) 'a keeper of water station', Ass. ghāṭowāl 'a ferry man'.

The Group āWa : Late MIA -āWa->āu, āba in Or., -ɔ:-, au, ao, āba in Mai., -ā(u) (medially), -āo- (finally) in Ass., -ā-, -āo- in Bengali, -āwa-(medially) in Bh. Aw. and -āu- (finally) in Bh. Aw, for examples, Or. ābara (also EOLS 19.5) Mod. Or. āhuri (apara, pk avara) O. Aw āwara Mid. Aw āur Aw āur O. Mai āora, āwara Mid Mai āru Mai āra, ora, ɔ:ra OB āwara Mid B āyara B ār Bh āwaru, āuri Ass āru, ār; Or. āu 'and' (api to Hoernle, apara to Turner) O.Mai a, au, āo, o, u Mid. Mai. ao B. -o- cf. Nep. au; Or. śāûḷā 'dark blue, tender' (śyāmala, pk. sāmala) Jn sāula, sāvala Mai sāmara, sɔ:ra, saura, saora Bh. sā:war cf. Ass sā:o (śyāma-) Mid B śāṅal; Mod. Or. jāûḷā beside jāā:ḷā O.Or. yāmaḷā (MBh Sv) for yāWāla (yamalau du. yāmalam 'pair' pk. jamala) cf. Sarvānanda : jumāḷa Mai jaûā; O.Or. bābana, bāāna, bāuna beside Mod. Or. bāna (dvāpañcāśat pkt. bāvaṇṇaṃ) cp. O.Or bāhana (TB) Ass bāwan B bāhānna Bh. bāwani Mai bābana (western dialect bāon, eastern dialect bāuna) Aw. bāwan, cf. Or. Mai ekābana (ekapañcāśat, *ekkāwaṇṇa); Or. Mai. athābana (aṣṭāpañcāśat, *aṭṭhāwaṇṇa) etc. Or. ṭhāba, thā, thāî (sthāma) ; pābacha beside pāhāca, pāucha (pādakṣepa?); Also note O.Or gābanti (gāyanti); paḷānti, paḷāanti, paḷābanti (palāyanti, MBh). Similarly O.Or nāba (also in O.Aw & OB) (nāvā pk. ṇāvā) but Mod. Or. nāā beside nāuri (*nāvadārika, nāva-kara) OB nāvaṛī 'boatman; Or. dāuṇi (dāmanī pk. damaṇī, dāvaṇa), pakhāuja (*pakṣātodya, *pakṣāvādya pk. pakkhāujja) Mid B pākhāju; O Or. uā:si (āmāvasyā) for *āûsi Ass. ā:usī cf. Mar āvaśī; Or. chuā for *chāu (śāvaka) B chā ; Or. māhunta (mahāmātra) bhāu (bhāva) kāûri (kāmarūpa) tāu (tāpa, *tāWa RB) O.Or ghāu (ghāta, Rasakulyā) rāu (rāva, BSAS).

The group -aYā, āYa, āYā- of Late MIA> Oṛiyā -āi-, for examples, Or bāi 'sound' (vāda-) Or. rāi (rāva-) B.Ass. rā; ṭhāî (sthāman, ṭhāYā) Bh. ṭhā:ī B. ṭhā:i, Ass. ṭhāi; chāi (chāyā) B. chāoyā Ass. chā: ; liā for *lāi (lājāḥ) compare also O.Or, kaṣāi (kaṣāya, SS) *sts.* bāibya (GBG) bāibe (PBG) for vāyavya.

(iii) *Treatment of Late MIA groups -ai-, au-* (*see* also under Diphthongisation)

MIA -ai-> -e- in Oṛiyā and Mid. Bengali and also in Bh. Ass. In Mai. it is -e- and optionally -aɛ- (finally), for examples, O.Or. esana (MBh U. p109) Mod. Or enhe 'such' (etādṛśa, *avādṛśa, ayādṛśa MIA aisana) cf. OB aisa, aisana Mid B ehena B hena O.Mar. aisa, esaṇê Mai. ehana Mid. Mai aisana, ehana O. Mai, aisana Magahī oisan; Or. kesana (*kadṛśana) Magahī kaisan OB kaisana, kaisani, kaisê O. Mar. kaisa O.Aw kasa, kaise, kaisehi; Or. die 'he gives' (dīyate pk. diai) OB de; Or. āmbhe, āme (Vedic asme, and asmābhiḥ pk. amhe, amhehiṁ Ap. amhehiṃ); Or. kare (kriyate pk. kariai), diśe (dṛśyate pk. disai) cf. OB kariai Bh. karē 'if he does', dekhē, paṛhē etc.; Or. kete (kiyat pk. kettia Ap. kettiu) cf. O Mar. ketūla 'some, a few' O Aw ketau for keta-u; Or. cheḷi (chagala Deś. chelao) also in other branches; Or. śohe (śobhati) aṭe (vartate pk. vaṭṭai) Jn vāṭe OB baṭṭai, baṭa Mod. Aw bāṭe Bh (ham) bāṭī; Or. nabe (navati-pk. ṇauiṃ, ṇavvai) cf. Bh nabbe Ass nabai Mai. nabbe, nabaɛ, nabbai B nabbui; Or. tesana (tādṛśana Ap. taisa) OB taisana, taisā ,taiso O. Mar. taisa; O. Or. yesana (yādṛśana) Magahī jaisan OB jaisane, jaisā, jaiso Mid Aw. jaisa (jāyasi); Or. pakhāḷe (prakṣālayati); O. Or. nohe (Keśava koili, ChG) beside nuhai (BSAS, RM) nahai, (BSAS) nohai (PP) Mod. Or. nuhe (na+asati, na+bhūyate); Or. paḷāe (palāyati) pāe (prāp-pk. pāvai) tumbhe, tame (*tuṣmābhiḥ) khāe (khādati) bandhāe (*bandhāpayati, bandhayati) dekhāe (*dṛkṣāpayati, darśayati); Or. enhe, tenhe, yenhe 'this-like, that-like, which-like' etc. (*aiha-na, *jaiha-na etc. plus emphatic hi> -i- cf. Kakati : FA ff 232) Ass. ene, tene, jene Magahī enne, tenne etc.

Retention of -ai-<Skt.-ati, pr. 3 p sg. : In Old Oṛiyā, the affix for the verb in present tense 3rd person sg. is preserved like Old Bengali, Old Maithilī and Modern Awadhī. Assamese too, often shows -ai- (ɔi) and -e-. In OB and O.Aw -ai- has often resulted into -aa- and -a- respectively, the line of development in Old Awadhī being, as Dr. Chatterjee has suggested, ai> ɛ> aɛ>-a-=ɔ. (UVP p. 18) for examples :

O.Or. karai, karei (karati pk. karei EOLS 37·4) OB karaa, karai O. Mar. karī 3p. sg. Pr. O.Aw. kara E. Ass. karae, kare cf. Bh. calē 'if he sees, etc.; O.Or. kāndai (krandati) OB kāndai ; Or. achai Mod. Or. achi (*acchati) O. Aw. ācha, āccha Mid. Aw. āchai (J) OB accha, ācha Mod. Mai. achi Jn. ase Ass. āche; O.Or. pochai (MBh U. p. 31) (proñchati) Mod. Aw põchai ; O.Or. nācai (nṛtyati) OB nācaa O. Aw nāca; O. Or. diśai (dṛśyate pk. dissai) OB diśaa, disai Jn. dise O. Aw. dīsa; O.Or. beṛhai (veṣṭate) O.Aw. veḍha; O.Or. bāhuṛai (vyāghuṭati) O. Aw. bahuṛai Mid. B. bāhuṛe; O.Or. gaṛhai (gaṭhati) OB gaṛhai; O.Or baṛhai 'carpenter' (inscr). Mod. Or. baṛhāi, baṛhei (vardhaki).

The Change of -ai, āi- to -i- : The final and medial group-vowel -ai, āi- in O. Or. and-e-in Modern Oṛiyā (OB-aï, aa O.Aw. -a- Mid Aw aï Mod. Aw -aï- Mid B. -e- Bh. -ē- in conditional sense and NB & Ass -ē-) have become -i- occasionally in Oṛiyā, Maithilī and Bhojpurī, (*see*. p. 75), for instances, Mod Or. achi (pk. acchai) Mai. achi B āche ; compare also B. āmi, tumi Or. āme, tame (asmābhiḥ, *tuṣmā-bhiḥ) ; B. uniś (ekonaviṃśati pk. eguṇavisaṃ, auṇavisaṃ) Bh. onais, anais Mai.

unaisa Ass. unaich Or. uṇeiśi for uṇaiśi cp. O.Or ūṇiśī (MBh. Md. p. 28) ūṇāiśa (GBG); also Mai. dasī, dassī (daśati) pacīsi (pañcaviṃśati) (FM p. 96); Similarly Or diāśili (*dīpaśalākikā) cf. B deślāi ; Mod. Or. nuho represents some of the old forms, viz. nohi (BrN 46) beside nohe, nuhai (ChG) nohai (RM 71, PP. 48) ; also O.Or delai Mod. Or. dili ; Mod. Or. joî beside juāî, (jāmātṛka) paciśa, O.Or pañciśa (BG) (pañcaviṃśati) B pāciś ; Or. bāiśi (dvāviṃśati) sateiśi (saptaviṃśati) bhiṇoi (bhaginīpati pk. bhainīvai) Mai. bahinwaɛ Ass. bhinīhi B. bonāi ; Or Oṛisā (udra-viṣaya) ; O.Or hoi (BrN 16) beside hoai (PG 23. NC. 53) hoe (AKG), hoye (DR. RBh.) hue, huai (AKG) (bhūyate) Mod. Or hue.

The Change of -ai- to -a- : The change is shared by Oṛiyā, Modern Bengali (standard colloquial) and Assamese ; but -ai- is preserved in Old and Middle Bengali, Bhojpurī, Maithilī, Awadhī and elsewhere, viz, Or. pasibā (cf. praviśati pk. pavisai) OB paisaa, paisai O.Aw. paisa Jn paisu O.Mai. paisu Mai. paisa Mid. B paiśe Ass. paś- ; Or. basibā (cf. upaviśati, *uvaisai rather than -vasati- 'dwells' as suggested by Prof. Turner) B. basā Ass. basā but O.Mar. baisaṇê O.Aw. baisa O.Mai, baisala Mai. baisa, baisaba, dial. B. baise Bh. baïse pāwal 'to be able to sit'.

Now we should consider whether Oṛiyā past tense-forms -kalā, galā, malā- (kṛ., gam, mṛ) can be explained in this light. Of course, the other suggestion that -kalā, malā- came from Mg. forms kaḍa, maḍa (Skt kṛta, mṛta), galā being formed after the analogy of them, is quite plausible (OBDL pp. 497, 343). But it should be noted that Māgadhan -ḍ- should develop into Or. -ḷ-, -ṛ-, r.

In the Oṛiyā inscriptions of 13th century, we have many verbal forms of participial past tense showing -lla- as suffix, for instances, ghetallā, hoillā, kallā as well as the participial adjective -jamillā- (cf. Vināyak Miśra : Or. Bh. I. and B. C. Mazumdar : Typical Oṛiyā selections). But Dr. K.B. Tripathi reads them as ghetalā ,hoilā kalā etc, though he has admitted that "the reading of this symbol as -lla- preferred by the earlier scholars is also justifiable" *vide* EOLS pp. 70, 226 fn. Hence the Oṛiyā forms might have come from -kṛta+lla> kaa-lla> kaYalla, etc. The existence of -aya- as -ae- is attested in OB. O. Mai and -ai-after *Samprasāraṇa* in Mid. B and Bh. and as -a- (<ai) in Ass. Magahī and Oṛiyā but also as -e- after contraction elsewhere.

For examples, Or. kalā OB kaelā Mid B kaila O Mai kaela, kayala Mai. kāɛla, kaela Jn keḷiya, kelā Bh kaïl Ass kolā ; Or. galā OB gela, gelī B gela Jn goliyā, gelā Bh gaïl Ass gol. The old Awadhī has developed the past base otherwise viz, kie, kia, kiesi, or, gā Mid. Aw gaē, etc. and therefore not be considered here. This type of shortening of -ai- to -a- might be a special development in the verbs and pronouns having frequent uses. For, the same type of shortening of -ai- to -a- in final unaccented syllables is found also in O.Aw, viz, O.Aw. kara for -karaï- OB ma, maî for may'ena, *maê where the line of development is -ai> ɛ> aɛ> a (cf. UVP p. 18) and Or. kalā, etc. may be judged in the light of

-kṛta-lla> kaa-lla,> kaYalla> kailla> kɛlla> kaɛlla > kala. Some instances of early Oriya attest to the same fact, for examples, O.Or. vaṣṇama (vaiṣṇava, EOLS 5·18) haba from √ha (EOLS 42·7) sanya (sainya, MP) datya (daitya, UBh. MM, KhB), baśya (vaiśya, KhB, PC.) etc. The same change in not infrequent in other eastern languages; viz., Ass. barāg (vairāgya), bahāg (vaiśākha) cat (caitra) *vide* FA ff 248; Bh. baṣṭam (ODBH p. 98); B cat for cot, baṣṭam for boṣṭom, etc. in sub-standard colloquy.

The Change of -ai, āi- to -ei-: The change of -āi- to -ei- is a peculiar phonetic feature which is often ascribed to Tamil mode of pronunciation of ai to ei (Caldwell p. 136). Possibly the change started with -ai- in the final syllable (note the use of *ai* for āi in aṛh*ai*, sat*ai*śa [SC. pp. 33, 36]; *see* also p. 56) and the tendency goes back as far as 15th century (*see* also under Vowel Harmony); for examples, O.Or. jāṇei (inscr.) 'knows' (jānāti pk. jāṇei) OB jāṇai Mod. Aw jāṇai; O.Or karei (EOLS 37.4) [karoti pk. karei] OB karaa, karai O. Mar karī E. Ass. karae, kare B kare. O. Or punei for *punaī (paurṇamī) (inscr. of Kapileśvara, 15th c. 13.12 EOLS) mod. Or punei, puniā; deitāpati (MP) for daitāpati; saṅgei (GBG) beside *ts.* saṅgati; ṭheī beside ṭhāī (PG 22, 43, sthāma).

The Oṛiyā forms may be the survivals of Pkt. forms jāṇei, karei etc.; but the tendency has been gaining ground in the later stage. Hence it may be taken as the early step of the modern tendency; for examples, Or. rosei beside roṣāi-ghar (rasavati pk. rasavai) 'kitchen' O.Aw rasoi Aw. rasoi Jn rasoye B rasui; Or. baṛhei 'carpenter' O.Or (inscr) baṛhai (vardhaki- Pā. vaḍḍhaki pk. vaḍḍhaia) Ass. bāṛhai Bh baṛhaī B bāṛhai> bāṛui; Or bhiṇei benide bhiṇoi (bhaginīpati pk. bhaiṇivai). The characteristic feature is frequent in the numerals, causative and denominative verbs. The real pattern of causative verb is found in karibā : karāibā, dekhibā : dekhāibā, śuṇibā : śuṇāibā like B and Ass. but the alternative pattern is represented in pācibā : paceibā, dharibā : dhareibā, similarly paṛheibā, boleibā, kandeibā, haseibā, caleibā, naceibā; and also in denominative verbs, goṛa : goṛeibā, pāṇi : pāṇeibā, sūtra : sutureibā, bāṭa : baṭeibā, pacha : pacheibā; also the numerals, aṛhei '2½', (ardhatrika) cf. O.Mai. aḍhāya Mai. aṛhaɛ Bh. aṛhāi B. āṛāi; uṇeiśi' 19' cf. Mai. unaisa, Bh. onais, anais. B. uniś; Or. sateiśi '27' cf. Bh. Mai. satāis B sātāś; Or. aṭheiśi '28' cf. Mai. Bh. aṭhāis B. āṭāś (ekonaviṃśati, saptaviṃśati, aṣṭāviṃśati). At present the final -ai- is always pronounced as -ei- even in Skt. pronunciation as in *meghairmeduram-baraiḥ* where -ai- is heard as : ei- (cf. Oṛiā Bhāṣāra Itihāsa V. : Misra).

Late MIA -aWi-> Or. -oi-: In some cases Late MIA -aWi- becomes -oi- in Oṛiyā where Bengali shows -ui, i, u- and the other eastern languages -aï, ai-. The change is usually associated with pkt. v, w, for instances, O.Or. ekoiśa (ekaviṃśati pk. ekkavīsaī, ekkavīsaṃ) Jn ekavīsa Bh ekais Mai ekaisa Aw. ekais B ekuś Ass ekaich; O.Or. uṇoiśa (MBh U. p. 6) Mod. Or. uṇeiśi (ekonaviṃśati pk. eguṇavisaṃ, auṇavisaṃ) Bh. onais, anais B uniś Mai unaisa Ass unaich; Or. rosei for *rasoi (rasavati) O.Aw rasoi B rasui; O.Or. cakoī Or. cakui (cakravākī),

bhiṇoi (bhaginīpati- pk. bhaiṇīvai) ; O.Or. aṭhāṇoi Mod. Or aṭhānabe (-navati pk. -nauiṃ); O.Or. *sts.* Mādhoi (MBh. K. Ko.) (Mādhavika). O.Or haroi (s. 33.9, 40.16 EOLS) beside harai (13.27 etc.) (Skt. harati); Mod. Or gharoi 'related to house, secret' (gṛha,-ika) ; bāṭoi 'a passer-by' (vartma-ika).

For the change of ai> oi> au *see* under Vowel Harmony.

(iv) *Treatment of Late MIA -au-* :

Late MIA -au-> Or. -o- and -u-, cf. OB -aü- Mid B -au- Mod. B. o, u : Old, Mid. and Mod Aw -au-, Mid Mai, -aü- Mod Mai -u-, dialectally -o-, Ass o- or -a'- (ɔ) but finally -au- (ɔu) beside -o-, Bh. -u-; for examples, Or. deuḷa (devakula- pk. devaula, deula) O Aw dewalu, deulu Jn deulu B deul Ass daul, da'l ; Or. johara (jatugṛha); O. Or. chayāṇoi (ṣaṇṇavati, pk. chaṇṇaui); O.Or. ṭho (EOLS) cf. Mod. Or. ṭhaû, ṭhû (sthāma); O.Or. āhuṭa (BSAS) (ardha *tūrtha, pk. āḍḍhuṭṭha Ap. āhuṭṭha) cf. O Mai ahuṭha Mai. huṭṭhā, MB āhuṭha (SKK), āuṭ Bh. āhuṭh Aw. hû:ṭhā; Or. uṇciśi (ekonaviṃśati pk. auṇavisaṃ) also in other brances; Or. anturī beside ātaṛa (antrakuṭa- to J. Bloch ; antaḥpuṭikā cf. S. Sen (CGP) OB antaüṛi Mid B ā:taṛi (Mādhavācārya) B ā:tuṛ; Or. māhunta (mahāmātra *mahaüta) cf. B māhut O.Aw. māhāutu Mai mahāuta Ass. māut; Or. hāturā 'hammer' (*hasta-kūṭa> *hatthauḍa) B hāturi Bi. hathaurā, hathaurā; Or. leṅguṭi (*liṅga-paṭṭa-, *laṅgapaṭṭa-, *laṅgauṭa) 'loin cloth' Bh lāgoṭ Aw lāgoṭ B leṅaṭ, lenṭi Ass lenṭi; also in the final syllable viz, Or. karu, karû, calu etc. (Skt. -atu imp. 3 sg. pk. -au) cf. OB karau, calau etc. also chāḍu, chaḍḍahu (2.sg), Mid B karau (Śkk) B karu-k cf. O.Aw hou (bhavatu) Mid Aw ending -au-in Tulsidāsa and Jāyasī, also -ao- in Jāyasī Mod. Aw -au- in -dekhau-, Bh. calu, dekhu, karu, chāṛu Mai calū cf. standard Mai khaglahû, coll. dialects khelõ, khelaû, Ass karok ; Or. taḷu 'at the bottom' (talakaḥ>*talao>*talau).

Possibly Or. -thû, ṭhaû -the postpositional affixes for ablative- may be explained in this way: Skt sthāma>pk. thāma>Ap thā:u, thā:u> ṭhaû, ṭhû cf. O.Or. ṭho (inscr. 15th c. Simhācalam EOLS 34.3) Mod Or. ṭhāba beside ṭhāî <*ṭhāWā, ṭhāYā cf. Mid Aw ṭhāû: (Jāyasī) Aw ṭhaur OB ṭhāvī Jn thā:ya, ṭhāya, ṭhāva Mai. ṭhɔ~ Bh ṭhā:ī, thā:w Ass ṭhāw, ṭhāi. Similarly, the postpositional affix for ablative viz, -ru-, -u- perhaps are derived from—-kara-taḥ->-ra-to->*karao> *-rau-> ru and -taḥ->-ao->au> u as in -ghararu- and -gharu- respectively or the postpositional affix in accusative viz, -ku-comes from OIA kṛtaḥ> kao> kau>ku.

Although the group -au-> -o- is noticeable in Prākrit (cf. mora, coddaha *vide* GK. ff. 166) it is not fruitful in B Ass Or Bh and Mai. in later stage and thereforo, cognate forms vary in their phonological developments. Usually they developed into diphthong though in O.Or. OB Mid. B. Old Aw and O. Mai they seemed to be pronounced as -aü-; for instances, Or. johara (jatugṛha) B jahar ; compare Mai. mōra (mayūra) sarahōji (pk. *sālabhāujjiā OIA* syālabhrātṛjāyā-) (FM ff 80); Ass ma'ra (mɔra) (mayūra) but rarely, thor 'space of the palm' (stha-puṭa) chõ 'actor's mask' (chadma, chaduma, *chauma) (FA p. 123); B. kanoj (kānyakubja pk. kaṇṇaujja) cf Or. kanāuja OAw. kanauja Mai. kanaujiā; B koṛi,

written kaṛi (kaparadikā) cf. Ass kori, Mai. Aw Or. kauṛī; B. Ass kon (Ap. kavaṇu) cf. Or. kauṇasi. Bi. kaun, kawan ; B. coddo (caturdaśa, pk. coddaha) Or. cauda Ass. caidhya OMai. caudasa, caudaha Mai. caudah; B. coth (caturtha) cf. Or. cautha.

The Change of -au- to -eu- (*see* also under Vowel Harmony); for instances, Or. śeuḷa (śakula) 'a kind of fish' Ass sa'l (xɔl) B śaul, śol ; Or. neuḷa (nakula pk. ṇeula) Bh. neur, Ass. B neul; Mod. Or kauṇasi 'some thing, some one' but compare keûṇi (KhB. pp. 37, 57, 111), kehuṇi (NC p. 31) beside kaûṇasi ; (KhB. 110 kahuṇasi (RM p 5) (kaḥ punaḥ Ap. kavaṇu) cp. Jn. kavaṇa, koṇa Ass. B. kon O. Aw. kavaṇa Aw. kaun.

(v) *Treatment of Late MIA groups -ae- and -ao-* :

The Late MIA -ae-<OIA aya etc. and Neo-Māgadhan aYa> -ae- converged and developed into -ai- on the one hand (see pp. 67-68) and -a- on the other ; for examples Or. kalā 'did' (kṛta, *kaa-illa, *kae-lla) O.Aw kara for karai OB ma, mai<may'ena, but Bh. mê (*maî) tê (*taî) (*see* p. 7-1).

Similarly, Late MIA -ao- <OIA ava etc. and Neo-Māgadhan -aWa-> -ao- coalesced and developed into -au- in Oṛiyā (*see* p. 6-7) and -u- (*see* pp. 72-73) viz, Or. ṭhaû, ṭhû <sthāma Ap. ṭhā:u, *ṭhaû or, -u- <-tao <-tas ; ku <kao <kṛtaḥ etc.

In initial syllables MIA -ao- becomes -o- as in Or. Bengali Mai. -ojhā- (upādhyāya pkt. aojjhāa).

(i) *Treatment of Late MIA -āi-* :

In medial and final positions, -āi- is retained in Oṛiyā like other eastern languages. But in Bengali, -āi- being closed by consonant in non-final position is often seen to be contracted to -ā- or, -ē-, for instance B. bār, ber <Skt. bāhir, bahir etc. *see below* (cf. ODBL pp. 350-51, 385-387). Maithilī shows rare mutation of -āi-> -ā- in the similar situation, for examples, Mai. bhābahu (bhrātṛ-vadhū), jāuta (yātṛputra pk yāiutta). But in final position, -āi- is often contracted to -ag- (*vide* FM ff 79). A comparative picture stands thus : Or. bāiśa (dvāviṁśati pk. bāviśa, bāisa) OMai. bāwisao (VRC 47) Mod. Mai. bāisa Ass. bāich, Bh. Aw. bāis B. bāiś, dial. bāś (*vide* ODBL); Or. satāiśa (saptaviṁśati pk. sattāviśa, sattāiśa) OMai. sattāwisa, satāisa Mod. Mai. satāisa, coll. sattāisa Aw. sattāis Bh. satāis Ass. sātāich B. sātāś ; Or. aṭhāiśa (aṣṭāviṁśati pk. aṭṭhāīsa) Mid. Mai. aṭṭhāisa Mod. Mai. aṭhāisa, dial. aṭṭhāisa, aṭhaisa B. āṭhāś, āṭāś Aw. aṭṭhāis Bh. aṭhāis ; Or. pāika (padātika pk. pāikka) B. pāik, pāk Mai. pāika Ass. pāik ; Or. bāigaṇa (vātiṅgana) B. begun dial. bāgun ; Or. ailā 'came' (āyāta + ila, *āilla) B. elo 'came' Bh. aile

In rare case, Oṛiyā shows -āi->-e-, viz, Or. cirāitā, ciretā (kirātatikta). B. ciretā, ciratā Ass. ciratā

For the change of Or. -āi-> -ā- in non-final position *see below.*

In final position : Or. dhāi (dhātṛkā) nehāi 'anvil' (nikhāti) O.Or. jamāi, juāî, jvāî (jāmātṛka) kāi (Deś. kāvī) gāī (gāvī) gosāî (gosvāmī) bhāi (bhātṛ) aṛhāi

(ardhatrika) sāî (svāmī) rāi (rājikā). In such cases Mai. shows -ag- in most cases, viz, Mai. gāi, gag (gāvī), sāg~(svāmī), jamag (jāmātṛka), bhag (bhātṛ), arbag (ardhatrika) etc.

The Change of -āi- to -oi : for the treatment of medial -āi- to -oi- see before p. 72.

The Change of -ā(h)i to --ā(h)ā : This type of change should be properly placed under Vowel Harmony. Here Oṛiyā stands quite apart from Bengali where -āhi-> -āi-> -ā-, -ē- with regular loss of medial -h-; for examples. Or. bāhāra (cf. bahiḥ and bāhya-Pā. bāhiro pk bāhi, bahiraa) Jn bāheri Bh bāhar. bāharî: Mai bāhara Ass bāhir B ber, bār, bāire for -bāhiro- Nep H Guj Mar. show -i-, o- in the second syllable. Or. ḍāāṇī (ḍākinī) Ass ḍāiṇi B ḍāini, ḍān, Mai ḍāini Bh ḍāini, also Nep H etc. show -i- ; Or. ḍāhāṇa (dakṣiṇa pk. ḍāhiṇa) B ḍāin, ḍān ; Or. bāhāṛā (vibhīdaka-, vibhītaka-, Pā vibhītako MIA bahedaa) cp. O.Or bāhaṛā (NC p. 58) B baheṛā Mai baheṛā Aw. baherā ; Or. kāhāṇi (kathānikā) B kāhinī.

The Change of -ai- to -ā- or -i- : In some cases, Late MIA āi> -ā- , rarely -i- in medial position in Oṛiyā, just as -ai-> -a- and -i- which has already been noted (see pp. 70-71) The change of -āi- to -ā- is common to Or. NB and Ass. for examples, Or. āsibā (cf. āviśati pk. āvisai) OB āveśī, aīsasi (2 sg) B āse Ass āhiba Mid B āisai; In a solitary example, Or. shows -āi->-i- : viz, Or. yibā cf. mu yibi 'I shall go' where √yā-+abba (<-tavya)>*yāYabba>*yāebba> yāiba >yiba cf. B. yāba. Also Or diāśili (*dipaśalākikā) B deślāi ; Or joî beside juāî (jamātṛ) For the change of -āi-> B. -ā-, -e- and Mai -ā, aü- see above.

(ii) *Treatment of Late MIA -āu-* :

Late MIA -āu-is tolerated in Oṛiyā as in other eastern langnages, as diphthongs in medial and final position in contrast with Bengali where sometimes -āu- >*-āi-> -ā-, -e- ; for examples. Or. chāuṇi (also in MBh, As p6 for *chāWani,) chāeṇi (MBh B. p. 97) for *chāYani (chādanikā), lāu (alāvu) rāuḷa (rājakula) rāuta (rājaputra) māusi-(mātṛṣvasā pk. māussī māussiā) B. māsī Ass. māhī ; Or. bhāuja (bhrātṛjāyā Deś. bhāujjā) B bhāj ; Or. bhāu (bhāva) pakhāuja (*pakṣāvādya, *pakṣātodya) cf. Mid. B. pākhāju etc.

In some cases, Or. āu>uā by metathesis, just as -āi->-iā- viz. Or. kāu beside kuā (kāka-, kāo, kāu) O Aw kauā Jn kāulā Mai. kāra, kauā OB kāra ? Bh kauā Ass kāuri ; Or. chuā (śāva- pk. chāva, *chāu) B chā, chā:, chāoyāl Ass. chali, chawāl, chāwa, chowālī Mai cho~ṛā, chabarā ; Or. nuā 'new' (nava-, nau-ā) B nayā; Or uā:sī (amāvasyā) cf Ass. ā:usī Mar āvaśī ; Compare also Or. liā (lājāḥ pk lāyā, *lāi) cf. Bi. lāwā; Or. khiā-piā 'eating and drinking' (khādita, khāia) ; compare other verbal nouns viz, yāi, thāi 'going, remaining' etc.

Sometimes -āu-> -u- through *-au (see pp. 72-73) compare Mai. salabhaujī pkt. *sālabhāujjia Skt. *śyālabhrātṛjāyā) (FM ff 80); Or. mausi for māusi (mātṛṣvasā); Or. postpositional affix for ablative -ṭhû, ṭhaû- (sthāma, thāva, *ṭhāû)

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cf. O. Or ṭho (inscr. 15th c. Simhācalam) (*see* p. 73); Or. māhunta 'elephant-driver' (mahāmātraḥ>mahāmatto> mahāvattu>mahāuta<mahāWatta) O Aw māhāutu, mahāutū Mai mahāuta, mahāutha Ass māut B māhut; Or pakhauja beside pakhāuja (*pakṣātodya) cf. Mai. pakhāuja; Or. palau beside palāu (pala-) cf. B palāo; Or aûṭhi for āṅguṭhi (aṅgusṭhya) (*see* p. 56) cp. Mai. aûṭha.

(iii) *Treatment of Late MIA* -āē- :

It is a very rare group in the interior of a word in Late MIA. Finally, -āē- becomes diphthong, written -āy- in Bengali and Assamese but -āe- in Oṛiyā. In Maithilī there is a further contraction of -āe- to -aẹ- ; for examples, Or. paṭhāe 'sends' (prasthāpayati pk paṭṭhāvei, *paṭṭhāWei, *paṭṭhāYei) compare O.Aw paṛhāwa, baṛhāwa Mid Aw khiāvai 'feeds' (Jāyasī) and Mod Aw causative in -āw-, Mai paṭhāẹba Ass pāṭhāy B pāṭhāy; compare also O.Or ghāeṇa (ghātena) (MBh Sv p.l), Or. dekhāe (*dṛkṣāpayati for darśayati) karāe (*kārāpayati for kārayati).

In modern Oṛiyā, usually -ā- + -e-> -e- in *Sandhi*. cf. pilā + e> pile, thokā + e> thoke, muḷiā+e> muḷie after contraction.

Sometimes-ā+e- developed into -ābe-in old Oṛiyā (*see before* for the treatment of -aWa-> aba, āWa> āba in Oṛiyā), for examples, O.Or, gābe for gāe (gāyati, SSN p. 17); bāye (GBG), bābe (Rasakulyā), bāhe (UBh) <Skt. vādayati.

(iv) *Treatment of Late MIA* -āō- :

The group -āō- becomes -āu- in Oṛiyā and Maithilī but Bengali prefers -āu-> -ā-, viz, Or. pakhāuja (*pakṣātodya pk pakkhāujja, cf. ātodyam pk. āojja) Mid B pākhāju NB pākhāj Mai pakhāuja.

(i) *Treatment of Late MIA ii, iī, īi, īī* :

The groups become -i- in Oṛiyā with other eastern languages, viz, Or. aśi (aśīti pk. asīī) B Ass āśī Mai. Aw assī Bh asī (Balliā Dt), assī (other dialects); also Or. dilā 'he gave' (dā-, *di-illa) khāilā (khādita-, khāia-illa, khāi-illa).

In Oṛiyā the retention of vowel group -ii-, sometimes heard as [i:], is of frequent occurrence : Or. jiibā 'to live', piibā 'to drink', siībā 'to sew' (Skt jīva-, piba- sīva-) etc.

(ii) *Treatment of Late MIA -ia, īa-* :

In initial and medial syllables, -ia, īa->-e- in Oṛiyā and in the other eastern languages, viz, Or. deṛha (dvi-ardhaḥ pk. divaḍḍha) Jn devhaḍī Aw deuṛhē, ḍēṛh Mai ḍēṛha, deoṛhā Bh ḍeṛh, ḍeṛhā B deṛ Ass ḍer; Or. ete 'so much' (iyattakaḥ Pā. ettako pk ettaa, ettia) O Mar. ituka OB eta B e'ta O Aw. etê Aw. ettā Bh etnā Mai ettā; also Or. kete 'how much', (kiyattaka-) tete 'that much' (cf. pk tettia, tittia) B. tata; Or. yete 'as much' etc. Also Or. *sts.* beusā (vyavasāya, viavasāya) Ass behā; Or bebhāra (vyavahāra) behorā (vyavahārika).

In Oṛiyā where -ia- is not contracted to -e-, the hiatus is preserved by Y-glide, usually not shown in orthography (*see* pp. 46-47) viz, Or. jiantā (jīvanta-), piyara (pitaraḥ) hiyā (hṛdaya) diāśili (dīpaśalākā) B. deślāi Ass. diyāśalāi, deśalāi.

In final syllables -ia->-i- in Oṛiyā and other eastern languages, but in Oṛiyā they are retained in many cases (*see* p. 6).

Sometimes Late MIA ia, -īa->-ī- in medial position in Oṛiyā. Compare B. sîti (sīmanta-), for examples, Or. pīlā (pītala- pk. pīala Deś. pīvala) cf. Jn pivalā Mai pīara, pīyara B. pilā; Or. bihana 'seed corn' (*bīja-dhānya> *bia-haṇṇa>* bihāna) Bi. bīhan 'seed' B. beyān (dial.) cf. Ass. biyanī sābaṭā 'a kind of wild plant' cf. Mai. bīā, bīyā; also Or. dila (proto-M gadhan *dia-illa <*dita-illa) O.Or. dela- (EOLS). Compare also Or. karichi for kariachi, etc. O. Or kāhichi for kāhî + achi(L. p. 120, KBS p. 75) bhayechi for bhaya achi (RBh).

Regarding the treatment of -ia-, Bengali and Assamese show similar development: ia>B. io, ago, Ass eo (go); whereas in Or. and Mai, ia>*ya>Or. -ya-, -a-, Mai. yɔ:, ɔ:; compare B. jion, jian (jīvana), śior (śikhara) Mid B. diha (imp. 2 sg)> dio and even io> -o-, rākhiha>rākhio>rekho (ODBL p. 352) cf. also Ass neõtā (nimantra) teoj (*tiajja) [FA p. 124]; but on the other hand, compare Mai. dyɔ:ra (devara, pk. diara) B. deor (dagor) Mai. nɔ:ta Ass neõtā=Or. nimatā (nimantra).

In Old Oṛiyā (inscriptions) -diaṅka- is represented as -dyaṅka- (deva-) and even assimilated -jaṁti- (inscr. 13th c.) for dianti cf. also dyanti for dianti (MBh. Md.); Mod Or. paṇḍā (paṇḍita, paṇḍia) nihāla 'obliged, very rich' (nidhi-, ṇihi, ṇihiālla) cf. B. neyāpāti (nidhi-prāpti ?). Compare O. Or. nyama (CM ii 68) for niyama; Mod Or. ahia, ahya (avidhavā) and even iā>*yā>-ā-, compare bāhā (ghara) <byāha, biāha<vivāha; cf. also byāhī> vivāhikā (CM. iv. 68) beside *sts.* bibhāi (RM. ch. 3. p. 9) [vaivāhika] B. beyāi. The tendency should also be noticed in Oṛiyā *Sandhi*, viz, cāri+aṇā>cār'aṇā, dia+aṇā (cf. dioṭi)> di'aṇā. For the similar treatement of -iu->-u-, ua>wa (*see below*).

(iii) Treatment of Late MIA-iā, īā- :

In initital and medial position īā, iā-> Or. iā=iYā cf. Mai. iā, yā, B. iyā, e Ass e (g) and -eo- (go), for instances, Or. śiāḷa (sṛgāla) Ass. B śiyāl B śagl; Or. siāi 'furrow made by a plough' (sītā pk. sīā) also Or. siāra : Oṛiā (auḍrīyaka) Mai Bh oṛiā B uṛiyā, uṛe; Or. *sts.* patiāra 'trust' (cf. Skt pratyayakāraka pk pattia 'trust', pattiai 'trusts') Mid. B patiya; Or. biāṇa 'birth (cf. vijāyati pk. viāai) Ass biyan B. biyāna, ben, bagn; O.Or (inscr.) bhiāṇa (vidhāna).

Final -ia- strengthened by the pleonastic affix -ā- becomes i(Y)ā- in Oṛiyā but to be modified to -ē- with accompanying umlaut in NB. viz, Or. Oṛiā (auḍrīyaka) Mai Bh oṛiā B uṛiyā, uṛe.; Or. kuṛiā (kuṭikā pk. kuḍī) B kûṛe OB kuṛiā; Or. dhaṇiā: (dhāneyam pk dhāṇā) 'coriander' Ass. dhaniyā B dhaniyā, dha'ne; Or. baṇiā (vāṇija- pk vāṇia) Bi baniyā Ass baniya B bene; Or. tutiyā 'blue vitriol' (tuttham) B tûte Ass tutiyā Mai tutiā; similarly, Or. niā: 'fire' (nidāgha pk ṇiāha) cf. western Pañjābī. nigh; Or. kāpuṛiā 'cloth seller' (karpaṭika) ṭhiā 'standing' (sthita pk ṭhida, thia) kāliā 'black' cf. B kelo; Or. kiā: 'why' (kena, *kina instr. sg. Pk. keṇaṁ, kiṇaṁ cf. Bh. I. by Sen p 133) cf. OB kê, kiṇa Mid B kinā; Or. luṇiā 'salty' (lavaṇika) B ā-luno 'without salt'; Or. māṭiā B. meṭō 'earthy' (mṛttikā-); Or. haḷiā (hālika) cf. B hele; Or. naṛiā B nuṛo etc.

(iv) Treatment of MIA -iu- :

Usually, -iu- remains in Oṛiyā, but in few cases -iu- becomes -u- through *-yu-. Maithilī varies between -iu- and -yu-. Bengali and Assamese show -i-. But in imperative 3rd p. sg. Ass. shows -iu->-io- and Eastern Ass -ia- viz. niok, niyak (*see* also -ia> ya, -ua> wa in Oṛiyā ; pp. 77, 80) for examples, Or. piusī (pitṛsvasā pk piussā, piussiā) Mai. pīsī, piusi, pyusī B pisi Ass pehī ; Or. cuṛā (cipiṭaka pk civiḍa, cimiḍha, civiḍha) Mai. cūṛā B ciṛā Ass cirā Bi ciurī (*ciuḍā, *cyuḍā) ; Or. sunthā O.Or siũnthi (RBh) (sīmanta pk. sīmanta, sīmantaya>*sīWānta.>*siûnta>*syunta) Mai. siûtha, sîthi Ass seõtā B sîthi, sîthā Jn sevaṭu 'end, limit'; Or.duṇā 'twice' (cf. dviguṇa pk. diuṇa, Ap. dūṇa<*dyuṇa ?) Jn duṇe Aw dūn Bh dūnā B. Ass. dunā Mai. dunnā, dūna Magahī dunnu.

(i) Treatment of Late MIA -uu, uū, ūu, ūū- :

The groups uu, ūu, ūū uū- are preserved as -u- after contraction in all the eastern languages. viz, Or. duṇā (dviguṇa>*duuna cf. ODBL p. 352) Ass. duṇāi 'once again' *see above* ; Or. bhuka, bhoka (bubhukṣā, bhukkhā or, MIA *buhukkhā, bhuukkhā ?) B bhuk Bh bhukhi ; O.Or. duje (Gopībhāṣā) dujā (Bh. ii, 32, GBG) [dvitīya MIA duijja, *duajja, *duujja] cf. Jn duje Ass dujā Mid B duaja B doj.

Sometimes Maithilī and Bengali show -o- for -uu-, viz, B. doj (<*duu-jja) *see above* ; Mai. ḍolāi (dukūlikā) cf. B. ḍolāi ; In Oṛiyā, the retention of -uu-, also heard as [u:] is sometimes found, viz, Or. suukā B. siki, śuki H. suki (śukiikā, sapadikā ? Pk. sukkiā cf. Bh. I p. 179).

(ii) Treatment of Late MIA -ua, ūa. uā, ūā- :

The groups become -u- in Oṛiyā but usually -o- in B. Ass, But cases are not infrequent in the eastern languages where -ua, ūa, uā, ūā- are preserved with intervention of a glide or are contracted to -u- and -o-. For the treatment of Final -ua, ūa, uā, ūā- (*see* pp. 6, 8).

In initial and medial positions -ua->-u- in Or. for instances, Or. duje (Gopībhāṣā, Bh. ii, GBG) [pk. *duajja] cf. B. doj *see before* ; Or. jhuṇā (dhūpana) B. dhunā ; Or. sundha (sugandha) cf. O Aw. OMai. sondha Aw. sõdh Mai. Bh. sonh Ass. sond(h)ā, B sõdā ; Or. tu O.Or. tû (tvam, tuam); Or. juāḷi (yuga+ala cf. ODBL p. 352) B. joyāl, jol ; Or. kuāra (kumāra pk. kumara-) OAw. kuāru Mid Aw. kûara Aw. kûār OMai. kumara Mai. kumhāra ? Bh. kûwā:r Ass kõwār B koṅār Mid B. kuṅār. koṅār, kõyār ; Or. goru (gorūpa), O.Or. mahuri (MBh. B. p. 110, 28) (madhukārikā) OB mauhārī, mohāri OMai. mahuarī. Compare also Mod Oṛiyā karuchi for karu achi etc. (*see* also p. 80).

(i) Treatment of MIA -ea, eā- :

In initial, medial and final positions, MIA -ea-> Or.-e- in rare cases in contrast with Bh. B. Mai. Aw and Ass., for examples, Or. cheṇi (chedanikā) Bh. chẽnī B. cheni Ass chenā Aw chenī 'chisel'; Or. ehā, e, (etat), ebe (*etadvat, *eabba) ebê.

MIA-ea, eā- > Or. ia, iā regularly cf. B. -e- (<e+a), eYā (<e+ā), Mai. yo: (<ia), eYā. viz, Or. kiāri (kedārikā) 'a bed in garden' Aw. keyārī Mai. keārī Bh. kiyārī=kiārī B keyārī ; Or. kiā (ketaka) B keyā ; compare debān beside diān (MP) B. deoyān (Persian dīwan) ; Or. diā cf. O.Or deamāna (MP) deo (inscr) (deva pk. deva) B. de 'a surname' Mid. B. deyā 'sky, cloud' Ass deo 'demon' O Mar. deo OAw. deu Aw. *sls*. deutā Mid Aw deotanhi 'gods' (jāyasī) ; Or. diara (devara pk. devara, diara) Bh dewar Mai dyo:ra, Ass deor B deor (dagor) ; Or. niāḷi (navamallikā, but to Turner, naipālī) OMai. lewārī Aw newāri Mid B. neyāli Ass newālī ; Or. dehaḷī (devagṛha cf. dehali) Mid B deharā ; O. Or nea 'take' imperative (MP) Mod. Or nia (nayatu).

Sometimes -eā- is tolerated with insertion of Y-glide or with -h- (*see* pp. 46-47, 52) viz, Or. teyāḷisa '43' (cf. trayaścatvāriṁśat pk. teyālisa) Ass teeallich B tetāllis ; Or. ehā, eā yā (eṣaḥ) OB eha, ehu Mid Aw ehi (Jāyasī) Aw yahu, iu Ass ehi Bi. ī B ei.

Sometimes Late MIA eWa, eWā> eba, ebā in Or: O.Or. sebaṇa 'he' (saḥ punaḥ Kh B 93) ; yebaṇa (yaḥ punaḥ) · O.Or. kebaṇa (NC p. 43) *see below* under MIA eu ; O.Or. gāṅgeba (gāṅgeya, BGi), Gāgraba (Gārgeya, GBG), Or. debān (Persion dīwan) cp. O.Or. diān (MP) B. deyān.

(ii) Treatment of MIA -ei- :

Late MIA -ei- in final position is reduced to -e-, viz, Or. bandhāe (*bandhāpayati for bandhayati, bandhāvei) B bā:dhāy ; Or, caḷāe (*calāpayati, calāvei) B cālāy Ass. calāy. But retention of -ei- is also found ; Or. deī (devikā) teisa (cf. trayoviṁśati pk. tevīsa) Ass B teiś.

In most cases -ei- is changed to -ie- by metathesis in monosyllabic words. We have already noted this type of change in -āi->-iā- or -āu->-uā-where the long vowel -ā is preferred at the end (*see* p. 75), viz, Or. die 'gives' (*dayati for dadāti pk. dei) but compare B. di, dii>dei (dadāmi) through Vowel Harmony. Or. kie beside ke, kehi 'who' (kaḥ api pk. kovi, kevi) cf. Or. kie kahe 'somebody says' B. kei bā jane 'who else knows' beside ke jāne, OB koi, koe, kovī OAw keî, keī ko, kou Mid Aw keu, kōī Aw kehī ; Or. sie beside se, sehi (saḥ api, sovi, sevi) B. sei (demonstrative pronoun), se.

(iii) Treatment of MIA -eu- :

MIA -eu- is tolerated in Oṛiyā, for examples, Or. deu 'let him do' (*dayatu for dadātu) But compare B. di-k Mid B. diu-k, deu-k (<deu, *detu=dadātu cf. ODBL) Mai. de (Ap dehu) Ass. diyak, diok ; also O.Or. neu (MBh. B. p. 77) (nayatu) cf. B. ni-k, Ass. niyak, niok ; O.Or. keûṇi (KhB pp. 37, 57, 111) kehuṇi (NC p. 31) for Mod. Or. k*au*ṇasi (kaḥ punaḥ Ap. kavaṇu, Mg. Ap. *keWaṇi) cf. O.Or. kebaṇa (MBh. etc.) Jn. kavaṇa, koṇa Ass. B kon OAw kavaṇa Aw. kaun, Bh. kewan, k*au*n.

(i) Treatment of Late MIA -oa, oā- :

Late MIA group, ōa, ōā>-ō- in Oṛiyā, Bengali Mai. Bh and Ass. viz, Or. thoṛā 'little' (stokam pk. thoaḍa) Jn thoḍā Bh thor, thoṛā Mai. thora OMai thoḷa B thoṛā Ass thor (a) ; Or. dhoe ; 'washes' (dhāvati, cf. dhauta pk. dhovai,

dhuvai<*dhūyato) B. dhoy=dhoe. Or. śoe (svapiti pk. sovai, suvai) B śoy, O.Aw soa ; Or. joî, juâî 'son-in-law' (jāmātṛka) ; O.Or. soga (RB 27) Mod. Or su(h)āga (saubhāgya-) *see below.*

Sometimes -oa>-o->-u- ; but possibly the line of development is -oa-> -ua->-u-, for examples, Or. sāñju 'armour' (saṃyoga) B. sā:joyā ; Or sundha (saugaundhya, sugandha) OAw. & OMai sondha Mai. sōnha, Bh sonh Ass sond(h)ā B sōdā 'sweet smelling' Aw. sōdh ; Or. su(h)āga 'love' O.Or. soga (RB 27) (saubhāgyam pk. sohagga) B sohāg also in Bh. Mai. sohāga Ass. suwāg *s/s.* subhāg ; O.Or. yūṇa (MBh. Sl. p. 18), early Mai joena (yojana Mg. pkt. *yoYaṇa) ; Or. sunā (Puri inscr. 15th c) [sauvarṇya pk. suvaṇṇa, soaṇṇa] OB sone B sonā OAw. sonê Aw. sonu, son Jn. sonê OMai sona-ṭake 'gold coin' Mai. sōnha Bh. sōnā Ass. soṇ(ā) ; Or. luha for -lua- O.Or. loye (SSN 80) lua (RB p. 84 BC p. 135) (lotaka) 'tears' Ass. lo E. Ass loh B. lor ; Or ruma, possibly a later development of *-ruWā- (roman) B. rõyā, rō ; Or. ṣohaṛa (MBh. D. 44) sohoṛa (RM 7th ch.) Mod. Or. suhāṇiā, adj. cf. Mai. sohara "a song sung on auspicious occasions" (sukhakara or, śobhana pk. suhara, sohala, *sohaṇa, *sohaṛā).

The group -oa- becomes -ua- in Oṛiyā, a quite contrast to Ass. B. Mai. Bh -o-. The change of Late MIA ea-> Or. ia is also worthy to be mentioned where the same raising of the first member of the group vowel has taken place (*see* pp. 78-79). Examples : Or luha O.Or. loya (SSN 80) beside lua (RB 84, BC 135) [lotaka] ; Or. hue (bhavati, bhūyate pk. hoai) Mid B hoe ; Or. ālua (āloka) Mai. ālo B ālo ; Or. pua also O.Or. pua (MBh. U. p. 7) beside poe (MBh U. p. 3) (pota- pk. poa) Mai. poa Ass. B. po ; Or. hua O.Or. hoa (BA) in imp. 2, Sg (bhava) ; Or. sua 'flood, wave' (srotas-) ; Or. muā: (modaka) B. moyā ; Or, guāḷa (gopāla). Medially, O.Or. kaṭuāḷa beside koṭoyāḷa (Mbh. N) (koṣṭhapāla, koṭṭapāla) Ass koṭowāl Bh. kotwāl Mai. koṭabāra B koṭāl ; Or. guāḷa O.Or. goāḷa (RM 43) (gośālā) OB gohāli B. goyāl, gol Ass gohāli Mai gohālī, gohārī ; O.Or. paṭoāra, paṭuāra 'a procession, (MP BA); O.Or daṇḍoāsi (inscr. EOLS) daṇḍuāsi (JC) (daṇḍapāśī) (*see also above*).

Sometimes the change of -oa-to -ua- is represented as va- in early Oṛiyā, just as ia=ya, iu=yu> u, (*see pp.* 77, 78); for instances, O.Or. śvāile (MBh G. p. 28), śvāi (MBh As p. 13) -śuāi- (*svāpayati, *sowāai) cf. OAw. soāwa B śoyāy ; O.Or. huante beside hvanti (MBh B. p.53), hvante (MBh B. p. 31), honti (MBh. B p. 37) (bhavanti, bhūyante> *hoanti).

In the modern words of foreign origin too, the group -oā- is not tolerated : viz, Or. ābāj B. āoyāj, (Persian awāz) ; Or. jabān B. jaoyān (Persian juwān) ; Or. sabār B. saoyār (Persian suwār). Sometimes oā> uā in foreign words, viz, Eng. *quarter* Or. kuāṭāra, Eng. *ward* Or uārḍa etc.

(ii) *Treatment of MIA -oi-* :

MIA -oi- remains as -oi- in Oṛiyā, but -ay- (ɔe) or -ui-, -u- in Bengali. -oi, o- in Maithilī and -u- in Assamese. This B. -ay- is nothing but the lowering of -oi-. (compare B. rasui O.Aw. rasei but Or. rosei from earlier *rasoi < rasavati) ; compare also O.Or. Mādhoi (Māadhavika) (MBh. KKo etc) Mod Or. bāṭoī 'passer-by' (vartma-, ika) cakoi (cakravākī) etc. In Middle Bengali *-jośī- spelt as -yaśī- cf. Mai. joisi, jōsī (pkt. joiśī Skt. jautiṣī), the contraction of -oi- to -o- is found (OBDL p. 353 FM p. 99). Examples of Or. -oi- : Or. koilā 'coal' (MIA

*koilla Skt lex. kokila- 'lighted coal', Deś. koilā) Bi. koelā B. kaylā; Or. koili (kokila- pk koila) Mai. koilī f. Bh. koili Mid B. kuiyilī (ŚKK) B koyel Ass kuli; Or. goiṭhā : (goviṣṭhā) Mai. goiṭhā Bh. goîṭhā B ghûṭe Ass. (gobara) -khûṭi 'dry cowdung'; Or. bhoi 'a caste' (bhogī, also in inscr.); O. Or. goī (gomika, RM 55) B. gûi; Or. goi 'secret' (gopya, gohya Pk. goia) cf. Mid. Mai. goi.

The contraction of -oi>-e- is seen in some verbal forms in colloquial pronunciation, viz., Or. hoibāra> hebāra, hoili> heli, hoibi> hebi etc. For the change of -oi->-au, ei- *see* under Vowel Harmony.

(iii) *Treatment of MIA -ou-*:

MIA ou is retained in Oṛiyā as -ou- or -eu-. It is represented in Bengali as -ou->-o-, in Maithilī -ō-, -ɔ:- (cf. Mai. gɔ:~ta, gõta for gomūtra, *see* FM ff 95). Examples: Or. hou, heu (also in O.Or. MBh. B. p. 26) [bhavatu pk. hou] Mai. ho, hou NB hou-k, hok OAw. hou Ass hao-k.

The interchange of ou : eu may be an analogical formation of -hoibā : hebā- or -hoilā : *helā-; but in all probability the development seems to be -ou-> *au>eu as a result of Vowel Harmony (*see infra*) as Mai. shows -ɔ:- which is a contracted vowel of -au- and is confirmed by Ass. ao. For the change of au > eu, compare Or. śeuḷa (śakula) B śaul, śol; Or. neuḷa (nakula pk. neuḷa) B neul, Bh. neur. *See* also under Vowel Harmony.

(iv) *Treatment of Late MIA -oe-* :

Late MIA -oe- becomes in Oṛiyā either -ue- or -u-, for instances, Or. mû, muhî (*may'ena, mayā,>*maYeṇa, *moWeṇa>Ap. maê, *moê> *maî, *muî which converged with mayā>pk. mae> Ap mai) cf. OB ma, maî Bh. mê O.Or. muiṁ (EOLS 24. 3, 5, 19.6, DR) muî and muhî (PG p.2, RB p. 6) for mu-hi Mid B. muñi, moñi NB mui (obsolete); OB moe (as in moe gheṇili) represents *-moê- <*moWeṇa possibly influenced by *mama + ena. Similarly, Or. tu O.Or. tû (MBh. B. p. 53), tuhi (RB. p. 51) (tvayā, *tvay'ena> Pk. tae *toe, tue> Ap tai, *tui, *toe) cf. OB tai, toe NB tui Bh. tê and OB taî Mid B toñi (cf. S. Sen Bh. I. p. 130).

But this type of special contraction of Late MIA oe> ui>u occurs in personal pronouns of high frequency; Otherwise MIA -oe- is retained in Oṛiyā as -oe- or -ue-, viz, Or. śoe beside śue 'sleeps (svapīti pk suvai, sovai>*soe) O.Aw. soa; Or. hue 'is' beside O.Or. hoe (MBh B. p. 95, U. p. 4) huai, hoe, hue (AKG) hoye (DR) [bhavati, bhūyate pk. hoi, hoai] cf. B. hay for hoe OB ho, hoi, compare also Or hue ta B. hay to 'perhaps' (bhavati).

By applying this phonetic correspondence, we may explain the irregularities in such Oṛiyā verbs, such as hoili=heli 'I became', hoilā=helā, hoibi=hebi 'I shall become'; Or. helā, hoilā <*ho-illa, *hoella (as in OB kaelā Mid B kailā for kṛta-illa, *kaa-illa, *kaella)> proto- Or. *huella<*hvela (as in O.Or. hvante for huante and śvāile for śuāile, *see before*). The proto-Oṛiyā or the neo-Māgadhan form *-hvella- might be the cause of the revival of -bhela- through -*hbella- cf. OB bhaila Mid Mai. bheli f. Mai. Magahī √bhel Bh. bhail E. Ass. bhela, bh*ai*la 'has become' (FA. p. 122 fn.).

CHAPTER VIII

NASALISATION OF VOWELS

The Aryan dialects entered the NIA stage when the double stops (with or without aspiration) were simplified with compensatory lengthening of the preceding short vowel (except Sindhī, Pañjābī and western Hindī). The same fate was destined to happen in the cases of nasal conjunct ; but here the compensation by lengthening and nasalisation came side by side. Before the complete absorption of the naşal into the preceding vowel, there would be a state when it was pronounced very short. Thus -aṅka > aⁿka > āⁿka > ã:k in Bengali whereas āṅka=ã:ṅka in Oṛiyā. This reduced nasal can be represented by-n- or -m- written above the line.

Amongst the Māgadhan dialects, Oṛiyā has not completely nasalised its vowel to the entire absorption of the original nasals, which may be said to have obtained the sound of the reduced nasal ; thus Skt krandana represents kã:ⁿdaṇā in Oṛiyā (ODBL p. 360).

The theory of reduced nasal is no doubt applicable to Oṛiyā when we observe that cases are not infrequent where complete nasalisation exists side by side with the forms having lengthening of the preceding vowel, for examples, Or. ãta, ãtaṛa (antra-) beside dānta (danta) or, bāã:cibā 'to deceive' beside bañcibā to live' (vañc-) gaĩṭhāḷa beside gainṭhāḷa (granthi-) cf. OMai pã:ca beside pāñca, dã:ta beside dānta, bã:dhala beside bāndhala. Moreover, the process of nasalisation is best seen in the group nasal and sibilant, viz. kãsā, kãsārī (kāṃsya-) māûsa, bāûśa (māṁsa, vaṁśa) praśãsā in colloquial pronunciation (praśaṃsā) etc. *See* also pp. 87-88.

But the theory possibly does not hold good, so far as the eastern languages are concerned, in case of class nasals grouped with the corresponding voiced consonants. Let us at first compare the patterns :

OIA ṅg(h) : Or. ṅg(h), Ass B Mai Bh -ṅ- and Bh Mai -ṅ(h)-, also Mai.ṅṅ beside -ṅ- Aw ~ g(h) Mid Mai ~ g

OIA nd(h) : Or. nd(h), B ~ d(h), Ass nd, ndh beside -n-, Bh n(h) Mai n,nn (nh) Aw ~ d(h) but Eastern Aw n(h) Mid Mai ~ d.

OIA mb(h) : Or. mb(h) beside m(h), Mai mm,m (mh, h), Bh m(h) B Ass-m- sometimes B ~ b. Aw ~ b (mh in eastern) Mid Mai ~ b

The above equations show that the line of development is :

OIA -ṅg- > -ṅṅ- as in Mai (cf. maṅgala > Mai maṅṅala) > -ṅ- as in B. Ass Bh, Mai.

OAI nd > -nn- as in Mai. after short wowel > -n- in Bh. Mai, sporadically in Ass.

OIA mb > -mm- as in Mai. > -m- in Bh Mai B Ass Or.

The other development of -ṅg- > ~ g, nd > ~ d, and mb > ~ b is in practice with Aw. Mid Mai and B (and to some extent in OMai cp. cã:da beside

cānda), the parallel of which is found in all the eastern languages (except Or.) in the combinaion of nasal plus unvoiced consonants and in all the old documents of the neo-Māgadhan languages.

Thus the development of NT (where T=unvoiced plosive or sibilant) > > nT > ~ T is quite clear. But with regard to the development of ND (where D = voiced plosive of the same class) > Nd > Nn > N, the tendency is a neo-Māgadhan feature. For, in the treatment of -mb(h)-, the phonetic rule is valid in all the eastern languages including even Oṛiyā (cf. mb > m in Or.) ; but is less forceful in -ṅg- as -ṅg- > -ṅ- everywhere except Or. ; and even it is lesser forceful in -nd(h)- as it becomes -n(h)- only in Bh. Mai. & Ass.

Regarding -ñj(h), the development is as it is with -ñc(h)- i.e., -ñj(h)->-~j(h)- instead of * n,ñ except Or. nj(h) (but compare Mai pāna < pañca. Possibly the affricate nature of the palatal stops is not in par with the development (the complete nasalisation in the group, nasal + sibilant even in Or. is to be noted) ; and as regards the development of - ~ ṛ(h) -Ass r < -ṇḍ(h) in all the eastern languages except Oṛiyā, perhaps the conjunction of two stops in dissimilar classes (i.e. ṇḍ = pk. nḍ (?) like modern pronunciation) has hindered the historical course in progress viz, -ṇḍ- >*ṇ, n.

There are some sporadic cases here and there in Bengali even, which confirms that the type -nd- > ⁿd > ~ ⁿd> ~ d is a development parallel with -ND- > Nᵈ > Nⁿ > N, for instances, OIA khaṇḍa >* khaṇṇa > B khānā Or. khaṇḍa cf. O. Or -khāni (ChG, PG p 22) also B. Ass. khān(i) ; Deśī baṇḍā > *baṇṇā > B bānā' pennis' Or. baṇḍā ; Ass B kān (skandha-) cf. Or. kāntha 'wall' Punj. kandh ; dial B. cān (candra) ; OIA krandana>* kāndanā > B kān-nā Or. kāndaṇā ; OIA randhana > rāndhanā > rān-nā Or. rāndhaṇā where -nd(h) > nd(h) > nn > n instead of nd > ~ d > ~ n > -n- as Dr. Chatterjee has suggested (ODBL p366). The development of MIA -mb > B. ~ b and -m- (cf. B tã:bā, tāmā Or. tambā ; B ã:b, ām Or. āmba < Pkt tamba, amba derived from tāmra, āmra) refers to the same parallel development.

Elsewhere : *ṅg* > *ṅṅ* > *ṅ* = *W* ~ in Oṛiyā, ā̃ṭhi (aṅguṣṭhya-) cp. Mai. aû̃ṭha ; iā̃ḷa-piā̃ḷā (iṅgalā piṅgalā) ; *ñc* > *nn* > *n* in Mai. pāna < pañca ; *ṇḍ* > *nn* > *n* in O. Or. chināila (RM 23rd ch) Mod. Or. chinḍibā, B. chĩṛ-, chin- (Pkt. chiṇḍī) ; mannana (maṇḍana EOLS), Or baniśī, baṛiśī (pkt. * baṇḍisī < baḍiśī) B bā̃ṛśī ; O. Or. khāni (khaṇḍa) ; *ndh* > *nn* > *n* in O. Or. Sanimigra (Sandhi-vigraha) ; *mbh* > *mm* > *m* in O Or. khammā (khambhā ? < khan), samandha (sambandhâ) *vide* EOLS.

The very development is to be found in Pañjābī, Sindhī, Lahandī etc. where voiced stops after the nasals are assimilated to the nasal, viz., WP -ṅṅ- < -ṅg-, P. nn < ṇḍ, nn < nd, mm < mb and WP nn < ñj (Jain : Phon. of P pp 73-75).

Moreover, in some words of Neo-Māgadhan, the group nasal + unvoiced stops, are assimilated to the nasals in which case the intermediate stage of voicing the unvoiced stops is to be surmised ; for, the similiar development is found in Pañjābī (cf. danta > dand) and the North-Western languages. That

the assimilation of the voiced stop to a preceding nasal and of the unvoiced to a voiced one is old, is proved by its occurrence in the Niyā documents and Khoroṣṭrī Dhammapada of central Asia (Burrow : KhD ff 45-46, also J.Bloch J.A.S. 1912 pp. 331-7) and in Sanskrit ṭaṅka, ṭaṅga 'spade' pkt. ṭaṅka; Skt. śṛṅkhāṇikā, śṛṅghāṇikā etc. The examples of the eastern languages are :

Or. pālaṅga 'spinach' (late Skt- pālaṅka, *pālaṅga pk. pālaṅka, palaṅgā) B Ass pālaṅ Bì. palā̃:k, pālak ; Or. ṭāṅgī 'axe' (Skt. ṭaṅka lexicon ṭaṅga pk ṭaṅga) Ass B ṭā̃ṅi Bh ṭā̃ṅī Mai ṭā̃ṅā ; Or ṭāṅgaṇā 'borax' (Skt ṭaṅkaṇa) ; compare also O.Or. ātaṅga(ātaṅka) (MBh. B. p36) cf. Mai. ādaṅka, Mid Mai adā̃ka ; Mai pāna (beside pā:ca) < pañca, > *pañja (FM p 108) > panja, > *panna compare P. panj. ; Mai kaṅanā (kaṅkana, *kaṅgana). Similarly, B pālaṅ : pālki 'bed litter' Mai palaṅa : pālakī Ass pāleṅ : pālkī Or. palaṅka : pāl(iṅ)ki etc. are the twofold developments of Skt. paryaṅka, palyaṅka and *palyaṅga.

In few examples of Oṛiyā, the group nasal + voiced stop is subject to the assimilation of the voiced stop to the preceding nasal, viz. iā̃ḷā-piā̃ḷā for iṅgalā-piṅgalā (MBh. M 4) iyā̃ḷā piyā̃ḷā (ChG) where -ṅg- > -ṅṅ- > -ṅ- > W~, compare also Mod Or. ā̃ûṭhi 'ring' (aṅguṣṭhika) beside āṅguṭhi cp. Mai. aûṭha (for the orthographical interchange of ṅ/ñ and -W~- see p. 101).

Oṛiyā shows the following peculiarities so far as the process of nasalisation is concerned :

(i) Nasal + unvoiced stop remains as -ṅk(h)-, -nc(h)-(written as ñc(h)-), -nt(h)-, -nṭ(h)-(written as ṇṭ(h)-), -mp(h)- with nasalisation and sporadic lengthening of the preceding vowel while B Ass Bh Mai Aw show - ~ (kh), ~ c(h), ~ ṭ(h), ~ t(h), ~ p(h).

(ii) Sometimes -ṅk- > -ṅg- in Oṛiyā when Ass B Bh Mai show -ṅ-

(iii) Nasal + voiced stop remains in Oṛiyā with nasalisation and sporadic lengthening of the preceding vowel: Thus

OIA ṅg(h) = Or ṅg(h) Ass B Bh Mai -ṅ-, also Bh Mai -ṅh-

OIA ñj(h) = Or. nj(h) but B Mai Bh Ass~j(h)

OIA ṇḍ(h) = Or. nḍ(h) but -~ṛ, - in all languages except Ass -~r.

OIA nd(h) = Or. nd(h) but -~d(h) in B, ndh, n in Ass, and -nn,n(h) in Mai. and -n(h) in Bh.

OIA mb(h) = Or. mb(h) also -m- but B~b, m Mai mm,m(h) Bh m(h)Ass.m

(iv) Pure nasalisation as in -ā̃ta, ā̃taṛa- (antra-) especially in *tbh.* words in Oṛiyā, and also in nasal + sibilant (kā̃sā<kāṁsya) as well as compensatory lengthening of the preceding vowel of the nasal (cf. dānta for danta) is not infrequent.

(v) Lengthening of the nasalised syllables cp. ḍā̃ā:sa for daṃśa, bā̃ā:ceibā 'to deceive' (vañc-) O. Or. mā̃ā:sa (māṃsa, MP) (*see* pp. 87-88).

(vi) The aspirated nasal -nh-in Or. like Bh Mai as opposed to B Ass -n-. But aspiration in -mh- is now disfavoured in Mod. Or. Compare Mai Bh -mh- B Ass -m-.

(vii) No qualitative change of the vowel before nasal seems to happen in Or. as opposed to B Ass cf. B bāḡkā Ass bḡkā for bā:kā (vakra); Ass gondh (gandha) etc. (*see* FA ff 252 ODBL p 322).

(viii) The final nasalisation of OIA -m- which existed even down to Neo-Māgadhan stage is best preserved in Oṛiyā than in any other eastern languages.

(ix) The intervocalic -m- >late MIA *W~ is represented in O.Or. as -b- and -m- from earlied -*W~- to be vocalised in Mod. Or. as -u-, -û- (cf. sāûḷā for śyāmala). Elision of the intervocalic -m- with the shift of nasalisation is found (camara > caãra). Similarly Late MIA *Y~ > -i, î-. Here Oṛiyā resembles Maithilī.

(x) In some cases Or. shows denasalisation in contrast with the other eastern languages

(I) DEPENDENT NASALISATION

(1) Class nasals and interior *Anusvāra* of MIA

MIA nasals inherited from OIA

(a) Unvoiced stops and aspirates preceded by class nasals:

The vowel is nasalised (after being lengthened) and the stop or the aspirate remains in Aw Bh Mai Ass B, but not in Oṛiyā. In Oṛiyā, though the preceding vowel is nasalised (not always shown in orthography), the class nasals remain fully or as reduced nasals with sporadic lengthening of the preceding vowel.

OIA-ṅk- > Pk ṅk > Or. ṅk; but B Ass Bh Aw Mai ~ k.

Examples: Or. āṅka (aṅka) Jn ã:kh OB aṅka-vālī B Aw Bh Ass ã:k Mai ã:ka also Ass āṅka OAw ãkavālī; Or. kāṅkaṇa (kaṅkaṇa pk kaṅkaṇaṁ) Jn kã:kaṇa OB kāṅkaṇa B kã:kaṇ Mai kaṅanā Aw kakana; Or. chaṭāṅki (*ṣaṭ-ṭaṇka) 'a measure of weight' Bh Ass B chaṭāk; Or ṭaṅkā 'a rupee' (poss. Skt ṭaṇka-) Jn ṭāṃka (sāla) 'mint' B ṭã:kśāl. Bh ṭaksār But B Mai Bh ṭākā Ass ṭakā; Or. kaṅkāḷa 'waist' (kaṅkāla pk kaṅkāla) B kã:kāl Ass kākāl; Or. āṅkuri 'sprout' (aṅkura) O Mar. aṅkurî: (loc. sg) Mai ãkurī; Or. pāliṅki (paryaṅka, palyaṅka pk pallaṅka) Bh palaṅ Ass pāleṅ Mai palaṅa, palaṅā B pālaṅ Aw palakā (*see* also pp 83-84); Or. ḍhêki, ḍhiki 'husking machine' (Deś. ḍheṃkā) Ass B Bh ḍhêki Mai ḍhêkī; Or. ḍhāṅkibā 'to cover' ḍhāṅkuṇī 'a lid' (pk ḍhakkiṇī Deś. ḍhaṁkiṇī) OAw ḍhã:kā Bh ḍhaknī Mai ḍhākana Ass ḍhākan, ḍhāknī B ḍhākā, ḍhākni; Or. baṅkā (vakra- cf. vaṅkuḥ 'going crookedly' pk vaṅka) OB baṅka B bã:kā, bêkā OMai bāṅki Mai bã:ka Jn vāṃkuḍā Aw bã:kā Ass bêkā Bh bã:k 'a curved ornament' etc.

Sometimes Skt ṅk > MIA ṅg, ṅk > Or ṅg viz, Or tāṅgaṇā 'borax' RH p. 8) (Skt. ṭaṅkaṇa-) ; Or. pālaṅga 'spinach (late Skt pālaṅka pk pālaṅka, pālaṅgā) etc. Or. ṭāṅgi 'battle axe' (ṭaṅka lex. ṭaṅga pk ṭaṅka) ; O. Or. ātaṅga for ātaṅka ; for the comparative study *see* pp. 83-84.

OIA-ṅk(h)->Pk ṅk(h)> Or. ṅkh, sometimes with aspiration lost :

Examples : Or. saṅkha 'conch' (śaṇkha-) B śā:kh Ass śā:kh ; Or. saṁkha 'bridge' (Skt saṃkrama- Pā saṅkamo pk saṃkamo ; Bloch connects to Skt śaṅku 'post' pk saṅku) B sā:ko OB sā:kama OMai sā:ku Mai sā:khu Ass sā:ku.

OIA ñc>Pk ñc> Or. ñc (=nc) ; B Ass etc.~c :

Examples : Or. pāñca (pañca pk pañca) OB pāñca OMai pāñca, pāñcao Jn pā:ca Mai pā:ca, pāna Bh B Aw pā:c ; Or. bañcibā' 'to save' (cf. vañcati pk vañcai. But S. Sen connects to vṛjyate pk vaccai, *vañcai *vide* Bh. I. p. 181) OMar vā:c- Ass bacā B bā:cā ; Or. āñcaḷa (añcala) Ass B ā:cal Bh ā:car Mai ā:cara ; Or cañcu (cañcu pk cañcu Deś. cuṃculī) Jn cāṃcū Mai cañcu (for cancu) Aw B Bh cõ:c Ass coñca 'the skin of a snake', cõc 'scrapings' ; Or. kāñcalā, kāñculi (kañculikā pk kañculiā) B kā:culi, kā:cali 'bodice' ; Or. chañcibā (cf. sañcinoti pk saṃciṇai) Ass sā:ciba ; Or. chāñca 'mould' (late Skt sañcaka-) Ass sā:c B chā:c Bi sā:cā Mai sā:ca ; Or. chiñcā, chiñcibā (siñca-) B chêcā Mai chicā, chīcā, chiccā Ass sîciba ; Or. mañcā (mañca- pk mañca) Jn māṃcu Mai macāna, macakī Bh maciyā, mãciyā 'raised' B mā:cā ; Or. kuñci (kuñcikā pk kuñciyā, kuñcigā) B kũji ; Or. cāñchibā 'to scrape' (*tyakṣati to Pischel, takṣati to Turner ; pk tacchai, takkhai) B cā:chā Ass cā:c Bh cā:ch.

OIA ṇṭ>Pk ṇṭ> Or. ṇṭ (=nṭ) ; Bh B Mai Ass Aw~ṭ :

Examples : Or. kaṇṭā (kaṇṭaka pk kaṇṭaa) OMai kāṇṭa Mai kā:ṭa Jn kāṁṭā Aw Ass B kā:ṭā Bh kā:ṭ ; Or. bāṇṭibā (cf. vaṇṭati pk vaṇṭai) Jn vāṁṭale Mai bā:ṭa Bh bā:ṭal B Ass bā:ṭ ; Or. beṇṭa (vṛnta, vṛntāka pk biṇṭa 'covering of fruit', viṇṭai 'wraps round') OB beṇṭe (loc.) Sarvānanda beṇṭa OAw bêṭali Aw bê:ṭ 'handle' Mai bhā:ṭā Bh bhêṭi Ass beṭu 'calyx of flower'; also Or. chāṇṭibā 'to trim' (<?) B chā:ṭā cf. Lah. chāṇḍan N H P G have the nasalisation as usual.

OIA ṇṭh>Pk ṇṭh> Or. ṇṭh (=nṭh) ; B Ass Bh Aw Mai~ṭh

Examples : Or. kaṇṭhi (kaṇṭhikā pk kaṇṭhiā) Bh kaṁṭhi 'necklace' Mid B kā:ṭhī B kā:ṭhi Ass kaṇṭhi Jn kāṁṭhīṁ 'on the brim' ; Or. gaṇṭhi (granthi pk gaṇṭhi) Jn gāṃṭi, gāṃṭhi, gāṭhi Mid Aw gā:ṭhi (Jāyasī) Aw gāṭhi Ass gā:ṭhi, guṇṭhi Mid Mai gā:ṭhi (Vid.) Mai gêṭha, gā:ṭha Bh gā:ṭhi B gā:ṭ, gêṭ Mid B gā:ṭhā ghar (grantha gṛha ODBL p. 461) ; Or. suṇṭhi 'dried ginger' (śuṇṭhi pk suṇṭhī) Aw sõ:ṭhi Mai sû:ṭhi Bh sõṭhi Ass suṇṭhî, sõṭarā B sũṭh ; Or. ṭhuṇṭhā 'maimed' (Pk ṭhuṇṭha 'stump', ṭuṇṭa) B ṭhûṭā, ṭhũṭo.

OIA nt>Pk nt> Or. nt ; Mai Aw Bh Ass B~t :

Examples : Or dānta (danta pk danta) O Mai dānta, dā:ta, data-chā (danta kṣata) Mai dā:ta, datamani Jn dāṁta Aw B Ass Bh dā:t; Or. tintuḷi, also O. Or. tintaḷi, tintaḍi (tintiḍikā) OB tentali B têtul OMar cīnctaḷī : (loc. sg) Ass têteli

Bh têtuli, têtul Mai tetari ; Or. tanta, tantī (tantram, tantrī pk tanta, tantī or Skt tanti+tantu pk tantu) Jn tāṁt(h)u Bh tā:t, tā:ti Mai tā:t Ass B tā:t, tā:ti ; Or. jiantā 'living'(jīvanta pk jīvanta) B jiyanta Ass jīyanta cf. jīyāõtā ; O. Or anturī Mod Or. ãtaṛa, (antrakuṭa to Bloch ; *antaḥ-puṭikā to S. Sen cf CGP.) Or. ãta (antra-) OB antaüṛi Mid B ã:taṛi B ã:tuṛ, ã:t Jn āṃta Mai ã:ta Bh Ass ã:t ; Or. panti 'row' (paṅkti- pk pantī) Jn pāṃti Aw Mai pã:tī B Ass pã:t (i) Bh pã:ti, also Ass pānti Early Mai pāti (Vid) ; Or. sāntarā 'a surname', sāãnta 'lord' O. Or. sāanta [EOLS] (sāmanta-, rāja) OMar sā:vata- B sā:trā ; Or. pantā (Skt pacant-, possibly not from pānī-ta) B pāntā Ass paîtā (<*paYanta) OAw paṁta, payanta, paanta Bh pantā.

The forms with -nt in 3. pl pr. are also preserved in Oṛiyā, for examples, Or. cobānti (carvayanti) etc. or, in conditional present viz., O.Or. huante, hante 'while remaining' cf. OAw ā-honta OB honti (bhavanti) cf. acchante, buṛante OMar hotê.

OIA nth>Pk nth> Or. nth ; Ass B Mai~th :

Examples : Or. gunthibā, gānthibā (granthaya- pk ganthai) OAw gã:ṭha pr. 3 sg. Jn guṁtha Mai gã:thaba Ass gã:thā B gã:thā ; Or. sunthā cf O.Or. sīmthi (RBh.) (sīmanta- pk sīmanta) Mai siûtha, sîthi Ass seõtā B sîthi Jn sevaṭu 'end, limit'

OIA mp>Pk mp> Or. mp ; B Ass Bh Mai Aw~p :

Examples : Or. kampibā (cf. kampati pk kampai) Jn kāṁpatī Mai kā:paba Aw kā:pai Ass kāpiba B kā:pā Bh kā:pal ; Or. campā (campaka- pk campaa) B cā:pā Ass cāpā Jn cāṁpā ; Or. rāmpa 'scratch', rāmpibā, rāmpuṛibā (pk rampa 'shavings' rampai, ramphai, rappai, ramhai 'scrapes') cf. B rêdā 'instrument for scraping'; Or. khompā O.Or. khopā (kṣumpra *vide* UVP, also *kṣupya, *kṣumpa pk khcmpa *vide* ODBL) OB khompā B khõpā O Mai khompā Ass. khõpā ; Or. sampibā (samarpaya-,) B. sāpā Ass sumpiba.

OIA mph>Pk mph> Or. mph ; B Ass Bh Mai Aw~ph :

Examples : Or. lampha (*ts* ?) (lampha) B lāph Bh lā:ph Ass lāph ; Or. gumpha 'moustache' (gumpha) Ass B gõph.

Sibilants with preceding *anusvāra* remain with the *anusvāra* nasalising the preceding vowel in B Ass Bh Mai Aw ; but in Oṛiyā, sometimes lengthening of a syllable takes place (cf. Bulletin of Cal. Phil. Society Vol. I pt. 1). Examples : Or. bāũśa, baîśī cf. O.Or. baṁiśī (JC) bāiṁśī (EOLS 47.12) [vaṁśa, vaṁśi pk vaṁsa] OMai bā:ṣī Mai bā:sa Aw bansī B bā:ś, bā:śi Ass bā:h, bā:hi Bh bā:s ; Or. māũsa (māṃsa pk maṃsa) OAw māsu OB mā:sa (c 23) B mās Jn māsa OMar mā:sa OMai māṁśa Mai māsu Bh mā:s Ass manha ; Or. haũsa 'duck' (haṁsa pk haṁsa) Mai hā:sa Ass hā:h B hā:s ; Or. ḍāã:sa beside ḍā:sa 'buffalo-fly' (daṁśa pk ḍaṁsa) B Bh ḍā:s Mai ḍā:sa Ass ḍā:h ; O. Or. kaṃsāḷa cf. kāã:sā (MP) Mod. Or. kāsā 'bell metal' (kāṁsya pk kaṁsa, kāsa) Mai kā:sa B Bh kā:sā Ass kā:ha ; Or. haṃsuḷi (derivative of Skt. aṁsaḥ 'shoulder' pk aṁsa) OAw hāsia B hā:suli 'collar' ; Or. ãũsibā 'to scratch' (Skt. aṁśayati, -te : 'to divide') ; Or. pāũśa 'ashes' (pāṁsu) B pā:ś.

Thus in case of—ṃ+s—, Oṛiyā does not conform always to the NIA development of vowel+nasal-conjunct resulting into lengthening and nasalisation of the preceding vowel, for examples, Or. Or. bāũśa, māũsa etc. of the above in contrast with the other eastern languages (cf bã:s, mã:s in other branches). The case may be explained in this way. At first -ṃ-was pronounced as a separate syllable -ã- (cf. OMar savãsāra for saṁsāra *vide* OMR : Tulpule). Between the back vowels, the *anusvāra* has been changed into a nature of -W~-(compare Or. bhaãra for bhaWãra <bhramara) and this W-glide is changed to -u- which is a very peculiar but regular phonetic tendency in Oṛiyā (compare bhaũrī, fem. of bhaãra) (*see* also pp. 95, 98). Thus OIA māṃsa, vaṁśa>* māWāsa, *bāWāśa=*māõsa, bāõśa etc.> māũsa, bāũśa etc. Compare also old orthography : māã:sa (MP), māêsa (JBh 24, PP. 23, also GBG) and māyeṃsa (GBG).

OIA *anusvāra* following the high vowel-i- was lost in the numerals in Oṛiyā as in other eastern languages ; for examples Or. paciśa but compare O.Or. pañciśa (BG, RBh, EOLS 54.6) [pañcaviṃśati Ap pacīsaṁ]; Or. batiśa (cf. dvātriṃśat pk battīsaṁ) ; Or. bāiśa, bāiśi (dvāviṁśati pk bāvīsaṁ Ap bāisa) ; O. Or. cābiśa (MBh U p 89 (cf. caturviṃśati pk cauvīsaṃ Ap covīsa) ; Or. cāḷiśa (catvāriṃśat pk cattālīsaṃ, cāyālīsaṃ Ap cālīsaṃ) ; Or. chatiśa (cf. ṣaṭtriṃśat pk chattīsaṃ) Or. *sts.* tiriśa (triṃśat pk tīsa) etc. Here, the loss of the *anusvāra* is clearly seen to be a Prākrit feature and it has been inherited by all the eastern languages.

(*b*) Class nasals with voiced consonants and *anusvāra* with h, y, v :

OIA ṅg>Pk. ṅg> Or. ṅg with nasalisation of the preceding vowel, though not shown in orthography; OB~ṅg B -ṅ- written ṅg, ṅ, ṃ ; Mai ṅ; Bh Ass ṅ ; Aw~g.

Examples : Or. āṅguḷi (aṅguli pk aṅguli) OMar āṅguliyā: pl. Mai āṅura Ass B āṅul, āṅgul; Or. āṅguṭhi (aṅguṣṭhya) OMar āṅguṭheyā-ceni (oblique) Mod Mar ãgaṭhā, ãguṭhā Mai ãûṭhā, ãuṭha Aw ãguṭhā Ass āṅaṭhi B āṅṭi Bh ãguṭhā; Or. āṅgaṇa beside agaṇā (aṅganam pk aṅganaṃ) OMar āṅgaṇī: loc. sg. Mod Mar ãgaṇa OB āṅgana B āṅinā Mai āṅana Bh āṅana written ã:gana Jn āṅgaṇa; Or. phariṅga (Skt. lex. phaḍiṅgā cf Skt pataṅga Pā paṭaṅga) Sarvānanda : phaḍiṅga B phariṅ Mai phanigā, phatiṅṅā Bh phatiṅgā Ass phariṅ ; Or. baṅgaḷā (der. of Skt vaṅgāḥ cf. vaṅgapāla) OB baṅgālī Mai baṅalā Ass baṅāl B bāṅāl, bāṅlā ; O. Or. lāṅguṛa beside lāṅguḷa (MBh, MP) Mod Or. lāṅguḷa (lāṅgulam pk laṅgūla, laṅgola) Mai nāṅari Ass negur B lāṅgul, lāṅul; also Or. śiṅga (śṛṅga) ṭāṅgibā 'to hang up' (pk ṭaṅkia 'spread out' Skt taṃsayati *vide* ND) leṅguṭi (*liṅga-paṭṭa) āṅga (aṅga) ḍāṅga 'stick' (pk ḍaṅgā), ḍiṅgā, ḍaṅgā (pk ḍoṅgī) beṅga 'frog' (vyaṅga ?) raṅga 'red' (raṅga) laṅga (lavaṅga) sāṅga (saṅga) siṅgaṛā (śṛṅgāṭaka) O.Or. Heṅgulā deī (Hiṅgulā devī) (MBh) aṅgaṭhā 'fire place' (agniṣṭhikā Pā aggiṭṭho with inf. of aṅgāra) laṅgalā (nagna, *naṃga).

Sometimes -ṅg- is lost in few cases, O.Or. iāḷā-piāḷā (iṅgalā-piṅgalā) (MBh etc.) Mod. or āûṭhi beside āṅguṭhi (aṅguṣṭhika).

OIA ṅgh > Pk ṅgh > Or. ṅgh ; B ṅ OB∼ṅgh Mai ṅ(h) Bh ṅh Ass ṅ Aw∼gh :

Examples: Or. jaṅgha 'thigh' (jaṅghā pk jaṅghā) Ass jāṅ also in B ; Mai jāṅ(h)a, Bh jāṅh; Or. siṅg(h)āṇi 'mucus from the nose' (śṛṅghāṇikā lex. śiṅghāṇa; pk siṅghāṇa) B siṅni, śikni Ass heṅun; Or. suṅghibā (śiṅghati<*śṛṅghati Pā siṅghati Deś suṅghia) OAw sû:gha, sûgha, sîhati Aw sû:gheû 'I smelt' Mai sūṅha, sūṅhaba Ass śoṅā B śõkā, śoṅā.

OIA ñj> Pk ñj> Or. ñj (pronounced as nj) ; Mai Ass Bh B ∼j Aw∼j:

Examples: Or. āñjuḷi (añjali pk añjali) Jn āṃjulī Mai ã:jura Ass ã:jali Bh ãjurī B ã:jlā 'handful' ; Or. gañjā (gṛñja, gañjā pk gañjā) B Ass Bh gã:jā ; Or. piñjarā (pañjara, piñjara pk pañjara) B pĩjrā 'cage', pã:jar 'rib' Aw pã:jar Mai pijarā, pã:jara Bh pĩjrā, pã:jar Ass pã:jar(ā), pĩjarā Jn pāṃjirā 'cage'.

OIA ñjh > Pk ñjh > Or. ñjh (pronounced as njh) ; Mai Bh B Aw ∼jh Ass ∼j :

Examples: Or. bāñjha 'barren' (vandhyā pk vañjha) OB bã:jha B bã:jh Jn vāṃjha Mai bã:jha, bã:jhā *sts*, banjhā Bh bã:jh Ass bājā; Or. sañjha, sañja (sandhyā pk sañjhā) OB sã:jhe loc. sg B sã:j(h) Jn sāṃj(h)a Aw sã:jh, sã:jhi Mai sã:jha *sts* sanjhā Bh *sts* sanjhā, sã:jh Ass sã:j, sãjiyā (adj) ; O.Or. (inscr.) biṃjha (Vindhya).

OIA ṇḍ> Pk ṇḍ> Or. ṇḍ (pronounced as nḍ) ; B ∼ṛ Mai ∼ ṛ. Bh Aw ∼ ṛ Ass ∼ r :

Examples: Or. bhaṇḍāra (bhāṇḍāgāra pk bhaṇḍāra) Jn bhaṃḍāra OMai bhaṇḍārī Mai bhaṛāra OAw bhaṇḍāru Mid Aw bhãḍārī (Jāyasī) OB bhaṇḍāra B bhã:ṛār, bhã:ṛāri Bh. bhãṛār Ass bhãrāl; Or. saṇḍūāsi (sandaṃśikā pk saṃḍāsa) OAw saṇḍāsī: (loc) Jn sāṃḍasa Mai sãṛasī Bh sãṛsī Ass sãrāh B sã:ṛāsi; Or. suṇḍa (śuṇḍā pk soṇḍā) OB śuṇḍinī fem. Aw sû:ṛi Bh sûṛh Mai sûṛha Ass śûr B śûṛ Bi sû:ṛ 'beard of the grain'; Or. saṇḍa 'bull', saṇḍha 'stout' (sāṇḍaḥ, late Skt ṣaṇḍaḥ pk saṇḍa, saṇḍha) OAw sã:ṛu Aw sã:ṛu Mai sã:ṛha Bh sã:ṛh Ass sã:r B ṣã:ṛ ; also Or. rāṇḍī (raṇḍā pk raṇḍā) muṇḍā 'stump' (muṇḍa 'shaved, hornless' pk muṇḍa) maṇḍa 'starch' (maṇḍa pk maṇḍo) paṇḍā (paṇḍita pk paṇḍia) piṇḍā (piṇḍikā) kāṇḍū (cf. kaṇḍuyati *vide* ND) 'lasciviousness' ; Or. aṇḍā 'roe' (āṇḍam) eraṇḍa (eraṇḍikā) cf Bh rê:ṛī Mai ãraṛī Ass erā B reṛi ; Or. kāṇḍa 'stalk' (*ts* ?) bhāṇḍa (bhāṇḍam) haṇḍā, hāṇḍi (late Skt haṇḍikā) etc.

Sometimes ṇḍ becomes -n- in oṛiyā possibly through *ṇṇ; viz., O.Or. chināila 'snatched' (RM. 23rd Chānda) for Mod. Or chiṇḍāila, cp. B. chĩṛila beside chināila; Mod. Or. baniśi beside baṛiśī (vaḍiśikā *baṇḍiśi ?) *see* p. 83.

OIA ṇḍh> Pk ṇḍh> Or. ṇḍh (=nḍh) ; B. ∼ ṛ Bh Mai ∼ṛh Ass∼r(h) Aw ∼ṛh :

Examples: Or. meṇḍhā, meṇḍā (Skt lex. meḍhra-, meṇḍha-, pk meḍḍha, meṇḍha, meṇḍa) Bh bhẽṛā Mai bhê:ṛā Aw bhê:ṛī f. Ass bherā cf mersāg B meṛā Bi mêṛhwā; Or. moṇḍa, maṇḍa (mūrdhvan pk muddha, muḍḍha, muṇḍha) Jn muṃda Mai mû:ṛa Bh mõ:ṛ Ass mūr B muṛā ; O.Or kaṇḍeāra 'helmsman' (RB 21) Mod Or kāṇḍārī (also B. Ass) [ODBL. p. 440] cf. OB kaṇṇahāra MB kāṇḍhārī NB. kã:ṛār (kāṇḍāgārin, karṇadhāra pk. karṇahāra). In the following case ṇḍh seems to become -ndh- in Oṛiyā: Or. dhāndholibā 'to search' (Deś. ḍhuṇḍhai) OMar dhāṇḍoḷitā: B ḍhõ:ṛā Mai ḍhû:ṛhaba, ḍhõṛha.

OIA nd> Pk nd > Or. nd ; B ~ d Mid Mai ~ d Mai nn, n Bh n Ass nd Aw n (eastern), ~ d :

Examples : cānda (candra pk canda) Jn cāṁdineṁ OMai cānda beside cā̃:da Mai cāna Mid Mai cā̃:da OB cānda B cā̃:d Bh cān Ass cānda Aw cānī 'silver' but Lakhimpurī cā̃:di (candrikā); Or. cānduā (candrātapa-, candraka) OMai cādoā Ass candowār Mid B cāndoā B cā̃:doyā 'canopy' ; Or. kāndibā, kāndaṇā (krand. krandana) OB kāndaï Ass kānd Mai kānana; Or. gonda (gundrā Deś guṁda) B gād Bi gõd; Or. bundā 'drop' (bindu-) Jn bîdulê Mid Mai bû:da (Rāg. 83) Mai būna, bunnā, bedulī Aw bû:d Bh būnī B bû:d 'deep in contempletion', bûdiyā. bõde 'a kind of sweetmeat'.

OIA ndh>Pk ndh > Or. ndh ; B ~dh, Ass ndh, n Bh nh Mai nh Aw nh (eastern), ~dh.

Examples : Or. andhāra (andhakāra pk andhaāra, andhāra) OB andhāri B ā:dhār OMai andhārī Mai anhāra OAw ādhārî f. Aw ānhārī Jn āṃdhāra Ass āndhār, endhār Bh anhār; Or. kāndha beside O.Or. kandha (GBG) 'shoulder' (skandha pk khandha) OAw kāndha Aw kā̃:dh OMai kandha Mai kānha, kāna Jn khāṁdu Ass kāndha, kān Bh kānh OB kāndha B kā̃:dh; Or. bāndha (bandha- pk bandha) Jn bāṃdha Mai bānha Mid Mai bā̃:dhae (Rāg.) Aw bā̃:dhab, bā̃:dh Eastern Aw bānhai Bh bānh B bā̃:dh Ass bāndh 'knot', bān 'dam' Or. sindhi (sandhi- pk saṃdhi) 'hole made by burglars' Ass sā̃:dhi 'joint', sindhi 'hole made by theives' B sîdh OB sāndhi Aw sêdhi Mai sonhi Bh senhi; Or. sundha (saugandhya) OAw sondha Aw sõdh OMai sondha Mai sonha Bh sonh Ass sondā, sondhā B sõdā. Also Or. bāndhibā (bandh) pindhibā (cf. Skt pinaddhaḥ) rāndhibā (randhaya) gandhāibā 'to stink' (gandha-) andhalā 'blind' (anddhaka). *See also* p. 83.

Sometimes devoicification takes places, viz kāntha 'wall' (skandha) cf. Punj. kandh 'wall' dial B. kān.

OIA mb, mr > Pk mb > Or mb, m ; B m, ~ b Mai m̐, mm Ass Bh m Aw. m (eastern), ~ b.

OIA mr > Pk mb > Or mb :

Examples : Or. āmba (āmra- Pā āmbaṃ) Jn āmbā OAw ā̃:ba Aw ābiyā Mai āma Ass Bh B ām B ā̃:b; Or. āmbiḷa 'acidity' (amlam pk ambila) Jn āmbaṭa Bh imlī Mai. āmila B ambal; Or. tambā (tāmram pk tamba) OMai tamaulī, tama (kuṇḍa) Mai tāma Jn tāmbaḍī 'red' Bh tāmā Ass tām B tāmā, tā̃:bā.

OIA mb > Pk mb > Or. mb, m :

Examples : Or. nembu, lembu (nimbūka-) Jn niṁba Mid Aw nīũ (Jāyasi) Mai nēbo (poss. a loan) Bh nībū Ass nemu B nebu; Or. nimba (nimba-) Mai nīma Ass nim B Bh nim; Or. tāmbuḷa, tāmaḷi (tāmbūlam, tāmbūlika pk tambola) Jn tāṃbola OB tā̃:bolā Mid Mai tābora (Vid) Mai tamolī Aw tābolī Ass tāmol Bh tamolī B tāmlī 'a caste' (ODBL p 366); Or. simba, sima 'beam' (śimba pk simbā) B sim, simi Bh semi; Or. lambā 'long' (lamba- pk lamba) Jn lāṁba Mai nāma, lw. from H (FM p 110) Bh lām; Or. kambaḷa but kamaḷa (RB 60) (kambala pk kambala) OAw kā̃:bala Aw kābarī (western) kamarī OMai kambala Mai kammala OB

kāmali B kambal Jn kāṁbalā Bh kamarā Ass kāmali; Or. tumbā 'a large dried gourd' (tumba Deś tumbi) B tumbā Bh tumā; Or. ḍamaru (ḍamaru-, *ḍambaru-, pk ḍamaru) Old Or. ḍāmāḷu (MBh B p6) ḍabāḷu (RB p 71) Ass ḍambaru B ḍamaru OB ḍamaru. ḍamaruli Mai ḍāmaru Jn ḍaura; Or. ḍama (ḍomba- pk ḍumba, ḍomba) Bh B Ass ḍom OB ḍombī f Mai ḍoma; Or. ḍālima, ḍāḷimba, ḍāṛimba cf. O.Or. ḍāṛhima (RBh) (dāḍimba pk dāḍima, dālima) Ass B ḍālim; Or. jāmu (jambu pk jambū) Aw jamunī (western) Bh jāmuni Ass jāmu Mai jāmu B jām; Or. simiḷi, simuḷi O.Or. śimuḷi (JC BSAS CM iv p 103) (śimbala- pk simbali) B śimul Ass śimalu; Or. śāmuka (śambuka); Or. cumā, cumbibā (cumba- caumbati pk cumbai) B Ass cumā Bh cūm Mai cummā; Or samudhi cf. O.Or. samundhī (PP. p 136) (saṃbandha-, sambandhī pk saṃbandha, saṃbandhi B dial. samandhī (*sts*), samundi Early Mid B samundha *sts*. Mai samadhi; Or. ḍimiri (udumbara- cf. Skt. uḍumbara- pk umbara) B. ḍumur Ass. ḍimaru Mai ḍummari Bh ḍūmari.

OIA mbh > Pk mbh > Or. mbh, m; OB Mid B mbh NB m without nasalisation of the preceding vowel: Early Mai∼bh. Mai mh,∼h: Bh mh Ass m Aw∼bh but mh in eastern.

Examples: Or. kumbhāra (kumbhakāra pk kumbhaāra. kumbhāra) Aw kũbhār. kumhār Mai kumhāra Ass kumār Bh kumhār B kumhār; Or. kumbhīra (kumbhīra pk kumbhīla) B kumir OB kumbhīra; Or. khambhāra (cf. skambha pk khambha) Mai khambāru B khāmar; Or. khamba (skambha-) OB khambhā-ṭhānā Jn khāṃba, khāṃbha Mai khāmhī, khāmha Bh khambhiyā, khambhā Aw khambhā; Or. sambhāḷibā 'to keep carefully' (saṃbhārayati) Jn sāṃbhāla Mid Mai sābhāra (Rāg.) Mai samhāra, samhār B sāmlāna; Or. thamāibā 'to stop' (stambhate pk thambhai) B thāmā, thamak Ass thamak Bh thambh Mai thamha; Or. gambhārī 'a kind of bush' (gambhārikā) Ass gamāri; Or. jambhira 'a kind of acid plant' (jambīra, jambhīra pk jambīra) Ass jamīr. *See* p. 83.

If there are two nasals of MIA to be reduced to one, there is no nasalisation of the vowel in Or. B Bh. In Maithilī, the preceding vowel is nasalised slightly and not indicated in writing, for examples: Or. āna (anya pk aṇṇa) Bh B Ass ān Mai ā:na; Or. kāna (karṇa pk kaṇṇa) Bh B Ass kān Mai kā:na; also Or. cama (carma- pk camma), Or. suṇā (suvarṇa pk suaṇṇa), Old Or. ni'na as in nina kṣīṇa (nimna, GBG).

MIA mh and nh from various sources are retained in Oṛiyā. Of mh and nh, mh is more susceptible of changing to -m-. In retention of -h- element, Oṛiyā is more conservative than Bengali and Assamese; and like the other eastern languages except Assamese and Bengali, it has preserved the old Māgadhan characteristics.

Examples: Or. kānhu, kanhāi (kṛṣṇa pk kaṇha) OMar. kānhu OMai kānhū Mai kānha, kāna, kanhu OB kāṇha, kānhu Bh kānhā, kanhaiā Aw. kanhaiyā, kādhaiyā Ass B kānu, kānāi; Or. jaṇha O.Or. juṇha (MBh) (jyotsnā pk joṇhā) OB jonha OAw joṇha Aw jonhaiyā Ass jon 'moon' B juni. jonāki 'moonlight, firefly'; Or. cinhā (cihnam pk ciṇha) Ass cin 'mark' B cinā 'known' Mai cenha Bh cinh Aw cīnh; Or. sāna 'small, young' (ślakṣṇaḥ pk saṇha, laṇha or, < Telugu, sanna?)

Jn sāna Mai sāna; Or. tumbhe. tome. tame (*tuṣmābhiḥ-, *tuṣme for yuṣmābhiḥ. yuṣme pk tumhe) Mai tõhe Ass tumi pl. B tumi sg. Jn tuhmi: Or. āmbhe, āme (asmābhiḥ, asme pk amhe, amhehiṃ) OB amhe B āmi OAw amhe Aw ham Jn āhmī Mai hamme Ass āmi 'we'; Or. *sls.* bāmhaṇa ? cp. O.Or. bāmuṇa, bāmbhaṇa. bambhaṇa (inscr) (brāhmaṇaḥ Pk bamhaṇa, bambhaṇa) OAw bāmhaṇa Mai bābhana Aw bāmhan. bā:bhan Ass bāmun Bh bāmhan, bābhan B bāmun. bamun; Or. umheibā as in niā: umheibā 'to lit fire' (uṣma-).

(2) Final *Anusvāra*

The nasalisation process of OIA constitutes three types of nasal sounds: (1) The class nasals, represented by the fifth letters of all the five classes of mutes (2) The *anusvāra* restricted to post-vocalic position before the fricatives and -h- and (3) the *anunāsika* 'nasality', though not of frequent occurrence, found as features of finality in the sentence or breath group.

But the orthographic role of -ṁ- is a very puzzling one in the history of OIA; and to state the situation:

(1) OIA *anusvāra* and *anunāsika* of OIA both meant nasalisation of vowels, though in Vedic such special pronunciation had been indicated by -ᴗ-. (2) OIA *anusvāra* (ṁ) before stops and aspirates may represent the class nasals ṅ, ñ, ṇ, n, m, before the corresponding stops at the option of writer and Pāṇini allows this optional use of -ṁ- for the homorganic nasals. (3) Original *anusvāra* can occur only before y, r, l, v and ś, ṣ, s and h.

Thus this -ṁ- is represented in the type of nasality, VṁS. VNT and VL~L where V=vowel, S=any fricative, T=any stop, N=homorganic nasal and L=any semi-vowel except -r- (cf. Allen: Phonetics in ancient India p. 41) and nothing definite is known as to what was the exact pronunciation of the *anusvāra* in ancient times (Whitney Skt. Gr. ff 71). Many theories have been propounded as to that it may be:

(a) A nasal glide -W~ as in Marāṭhī sav ~ asāra for saṁsāra, Or. māũsa <*māW~sa for māṁsa cp. O. Or māẽsa (JBh. 24, PP. 23) māyeṃsa (GBG).

(b) A velar sound of consonantal nature inferred from its making a heavy syllable with a short vowel before it—a tendency condemned by Uvaṭa, for pronouncing such -ṅ- found in the present Māgadhan languages. Compare Mod. Oṛiyā pronunciation of -ṁ- as -ṅ-.

(c) A diphthongal combination of -a- and *anusvāra* (=ay~?) (noted in Ṛk-Prātiśākhya xiii. 41). Compare O. Or baĩśī (vaṁśī) māũsa (māṁsa).

(d) Or, a nasalisation with a metrical lengthening of the vowel, so apparent in the modern Aryan languages cf. B bã:s (vaṁśa) Or kāsā (kāṁsya), O Or māā:sa (MP) [māṁsa].

(c) Or, a nasalised fricative (noted by Uvaṭa) of the pattern VZ∼S where Z∼=nasalised fricative of the nature N and L∼combined.

(For the full treatment *see* Allen : Phonetics in Ancient India ff 1.122.)

In MIA, a further modification took place. First of all, the original -ṁ- remained : but, OIA final m, n> ṁ in early and second MIA. In Late MIA (Ap.) the preceding vowel was clearly nasalised. Possibly the final syllable with -ṇ- <OIA -n- was also nasalised by the influence of nasalising tendency of -m-. Thus, OIA kālena> Pk kaleṇaṁ where the final -ṁ- is perhaps the accompanying nasalisation of -kāleṇ(ã)-. The Apabhraṁśa forms -kāleṁ, kālê- perhaps are contracted forms of -kāleṇaṁ-. The *anusvāra* on the other hand, in the interior of words, before y, v, r, l, ś, ṣ, s and the aspirate -h- was dropped in many cases (cf. OIA siṁha, viṁśa> pk sīha, vīsa) but where it remained, it remained like class nasal and bahaved exactly like that of the NIA stage in the combination of vowel plus double consonant.

But anyway, that the letter -ṁ- stood for the contiguous nasalisation of the vowel is beyond doubt ; and the hypothesis is of no mean value when we observe :

(a) the orthographic non-distinction of -ṁ- and *anunāsika* (ँ) in the final syllable in the Pkt. documents (viz. hiṁ, hĩ, -ṇaṁ and -ṇã- etc.) (cf. Pischel : GK ff 178-183).

(b) The abundance of nasal vowels in NIA languages developed due to the loss of OIA nasal conjunct ; or, the abundance of final nasalisation through the loss of MIA -ṁ- in the languages l'ke Gujrātī, Marāṭhī etc.

(c) Above all, the genius reference of an old 'tendency, censured by the Ṛk-Prātiśākhya (xiv, 56), but general in the modern IA languages, for vowels to take on some degree of nasal colour in contact with nasal cosonants' (Allen p. 40).

(For the treatment of orthographic role of -ṁ- in neo-Māgadhan languages, *see infra*).

In any case, the final nasalisation of OIA m>MIA ṁ is still found in Guj. Mar and sporadically in Western Hindī cf. Guj karvû (kartavyakam) pahlû (*prathilakam) Mar. śẽ: (śatam) bĩ: (bījam) (ODBL p. 359). Dr. Chatterjee has observed : 'this final nasalisation is not preserved in other NIA and where it is found, it is found as a context of intervocal -W∼-' (ODBL p. 359). But by judging Oṛiyā with other eastern languages, we can infer that the final nasalisation was not infrequent in the neo-Māgadhan stage.

Instead of taking OB -hāũ- as a derivative of Skt. aham=*ahakaṁ>*haaṁ> *haW∼a>haû as Dr. Chatterjee has suggested, we can infer that it has developed from Ap. haõ<*hakam cf. OAw haû. Guj. hû. Braj Bhākhā *haû* and not from intervocalic -W∼- ; other examples of *OB*, tihã, jihã, ihã 'honorific forms of pronouns<OIA eṣām>MIA ehaṁ etc. *Early Mai.* hāû, uparã (uparam) (FM p. 60) Old Mai. śiṣṭa sewã: ba'sala chathi (VRC 8) 'good men are waiting for service'; 'sã:jhaka berã: jamunāka tirã: (Rāg. 41) where sewã: (sevāyām for sevāyai), ber

(volāyām) tirā: (tire, *tirasmin) (cf. FM p303), õ (oṁ, VRC p70). Mod Mai kahā: (*kahaṁ cf. pk kahiṁ) jahā: (*jahaṁ cf pk jahiṁ) tahî (pk tahiṁ) etc. *Old Awadhi*: haû (*ahakam) kuû: (kūpam) putā (putram Ap *putā), postposition of instrumental case, -saû (samam, saW∼a, saWā). muhā (mukham) tû (tvam) etc. *Assamese*: toõ (tg̃õ) 'he' (honorific) (teṣām > MIA tesaṃ Ap tehā), eõ (g̃õ) 'this person' honorific (eṣām Ap ehā) and dialectal kahê, kahāi 'where', jahe, jahāi 'whichever way' where -ê, aî- <OIA-smin MIA -ssiṁ Ap hiṁ, hî (cf. Kakati : FA ff285). *Oriya*: muhā (mukham pk muha, muhaṁ) OB muha OAw muhā Bh mûh ; O. Or. tû (MBh. B. 53) Mod. Or. tu (tvam Ved. tuvam) Jn tû O. Aw. tû: tû Mai tõ. The ablative case-ending -hû (cf. 42/6 EOLS) (<Ap hû < -bhyam) as in -kṛṣṇahû anye nāhi jāṇe- (kṛṣṇād anyam na jānāti) cf. OB khepahû (kṣepāt) raaṇahû (ratnāt) (cf. S. Sen Bh. I. p. 123), also Oriyā tahî 'there', jahî (*tabhiṁ pk tahim Ap tahî etc.) Mid B tahî, tahi (loc.) ; Or. yahû-tahû (also MBh K. 47). O. Or. saddibāê (sādhayitavyam, 1271 A.D. insc) diā (devam) niā: (nidāgha). O. Or suniā:(GBh) 'a gold coin' (*sauvarṇikam) kuā (kūpam pk. kūva, kūa) cf. OAw, kuû: Mai. kūā: Bh. kuā: Ass. kû:wā B. kuā ; Or muā: (modakam). Compare also the pronunciation of -ṁ- in external position in Old Oriyā, e.g. bārûbāra (vāraṃ vāra, Bh. ii p. 88), ahā -bhāva (aham KhB p. 14) ; Or sêê (svayam) cf. O. Or 'svayê (KhB pp. 20, 95) beside svaṃye (KhB pp. 27, 97), svayeṃ (KhB p. 50, RB p. 73).

(3) Nasalisation in interior vowels

(A) The pronunciation of -ṃ- in the Eastern Languages :

Though OIA, MIA *anusvāra* has disappeared chiefly or has resulted in a mere nasalisation, its orthographic role was yet to continue. Before entering into the discussion, we must at first evaluate the *ts.* or *s/s.* nature of *anusvāra* (ṁ) in the modern eastern languages.

In modern Indian, *anusvāra* is pronounced as -ṅ-(ঙ) in Bengali, -n- (न) in northern and -m- (म) in southern Indian and as-w- in Marāṭhī (cf. Indian Linguistics Vol. 21 1960 : Dr. Chatterjee's article). The -ṅ- pronunciation of -ṃ- is common to Bengali, Assamese and Oriyā and naturally this -ṃ- cannot represent class nasals in orthography found elsewhere in India (cf. also ODBL p. 518). Of course, in Old Oriyā the case was otherwise.

The combinatory pronunciations of *anusvāra* in the modern eastern languages are given below :

(a) OIA ṃ+h : Bh. ṅh written as in siṅgh ; Mai ṅh, ṅgh as in siṅha, siṅgha ; B ṅgh as in siṅgha Ass ṅg Aw nh cf. Old Aw· sinhāsaṇa for siṃhāsana (UVP p. 11).

In Oriyā also, the pronunciation of ṃ+h=ṅgh started as early as 13th century; siṃg(h)a (2/6 EOLS) in inscriptions cf. also siṅgha (DR) (1.1 EOLS) :

(b) OIA ṃ+w=ṃb : Bh m<mm<mb cf. Bh samād for sammād cf. Mid B samād < saṃbāda<saṃvāda ; Mai samāda, sambāda, also kimbā as in B (kiṃvā) ; compare also Old Mai. evambidha (VRC 17) B kiṃbā, kimbā, saṃbād, sambād Ass kimbā etc.

In Oriyā the pronunciation of-ṃ- in the combination of -ṃ+v- is at present either -ṅ- or -m-. Prof. Vināyaka Miśra has cited two such examples from modern Oriyā, e.g., sambāda (saṃvāda), baśambada (vaśaṃvada) [Oriā Bhāṣāra Itihāsa]. Nothing can be said about the old pronunciation; but it is likely that -mb- for -ṃv- prevailed in the early times which fact may be deduced from the inscriptional evidences, viz., samaṃdhe for sammandhe (Skt. saṃbandha), sambata beside saṃvatsa. saṃbatsara (EOLS 1.8-9, 1.2-3, 3.1. 6.1 etc.).

(e) OIA ṃ+ś, ṣ, s=Mai ns, ṅs as in bansa, baṅsa (vaṁśa), Bh Aw ns B ṅs Ass ṅh

In Oriyā too, the pronunciation is -ṅ-, though one might often hear the pedantic pronunciation of-ṃs- as -ns- (i.e. bansa for Skt. vaṃśa) in the speech-habit of the speakers of Puri; and presumably, it is acquired as a conservative pronunciation from the Western India.

It may be inferred from the above that-ṅ- pronunciation in the combination of -ṃb-, ṃs- was an earlier speech-habit in common with Bengali, Assamese, Bhojpurī, Maithilī and Oriyā; whereas -n- pronunciation prevailed in Awadhī in contact of which Bhojpurī and Maithilī acquired the habit afterwards. Regarding -ṃ+w/v-, it is certain that-ṅb- is a late development being restricted possibly to Bengali, Assamese and Oriyā.

Dr. Chatterjee has suggested that-ṅ- pronunciation of -ṃ- was current in Bengal about 7th century A.D. as shown in the spelling-saṅścāla- for -saṃścāla- in the Tipperah inscription of Lokanātha and also -vaṅśe- for -vaṃśe- in the inscription of Mādhava Varman of Koṅgoḍa (ODBL p. 518). In Oriyā the same habit of pronouncing -ṃ- as -ṅ- has been noticed in the inscriptions of 13th century A. D. (compare siṃga in 2.6 but siṅgha in 1.1, EOLS cf. siṅga (VRC) for Skt. siṃha).

In the Māgadhan Apabhraṃśa, as Dr. Chatterjee has surmised, Skt. *anusvāra* (ṃ) also figured as -W~- i.e. a nasal prolongation or a nasal glide following a pure vowel. It, in all likelihood, represented the original mode of pronunciation of Skt. -ṃ- in the middle or at the end of a word, before the sibilants and the aspirate -h-, before the semi-vowels and liquids which is confirmed by the fact that the traditional pronunciation of Skt. -ṃ- in different parts of India has altered -~- of OIA to a definite nasal, ŋ, n, m, w (ODBL pp. 518,244, also "The Pronunciation of Sanskrit" by Dr. S. K. Chatterjee in 'Indian Linguistics' Vol. 21, 1960 pp. 69-70). Besides the pronunciation of -ṃ- as -W~- at present in the Maratha country and Gujrat, we may adducibly take into account such developments as Oriyā māũsa, bāũśa, haũsa etc. (Skt. māṃsa, vaṃśa, haṃsa) which assuredly, originated from earlier māW~asa, bāW~aśa, haW~sa etc. after *Samprasāraṇa*, a peculiar phonetic feature in common with Oriyā and Maithilī. The early state of affairs is also represented in such examples of old Oriyā, viz., O. Or. māyẽsa (Bh J PP), māyeṃsa (GBG) from earlier māY~asa (Skt. māṃsa), or, baïśī (also in GBG RM) beside baiṃśī (GBG) baṃiśī (JC) cf. baiṃsorī (BNG) from earlier *baY~aśī (Skt. vaṁsī). It might be that in the Neo-Māgadhan stage -ṁ- after a vowel developed into a diphthongal combination (i.e. baY~śī, māY~sa/māW~sa <Skt. vaṃśī, māṃsa etc.).

But the situation becomes more complex when we observe that in many cases Skt. -ṃ- became a mere nasalisation to the preceding vowel, perhaps being lengthened, in the early history of the eastern languages, for instances, O.Or. mā̃sa (māṃsa, MP), ahîsā (ahiṃsā, PG pp. 11, 53), hîsā (hiṃsā, SC p. 12), ahā-bhāba (ahaṃ bhāva, KhB p. 14), bārūbāra (vāraṃ vāra-, Bh ii, p. 88) Mod. Or: prasāsā for praśaṃsā ; OMai. ahîkārī (ahaṃkārī ? VRC p. 9). -õ- (oṃ. VRC p. 70); OB sãbeana beside sambeaṇa (Caryā 26, 15) (saṃvedana).

In addition, Skt. *anusvāra* (ṃ) stood also for the class nasals. Skt. -ṃ- is seen to be modified itself by assimilation to ṅ, ñ, ṇ, n, m following the nature of the pure stop or aspirated consonant. Though this system of orthography has been discarded in the eastern part of India on account of its constant value as -ṅ-, the practice is being continued elsewhere in India. But in the early history of the eastern languages, the general practice of inserting *anusvāra* before a plosive to indicate a class nasal (full or reduced) was not uncommon ; for examples in Oriyā :

ṃ+k(h), g(h) : O. Or. manahiṃki (Puri inscr. L III, JASB Vol. LXII, 1893) beside manahiṅki ; kaṃkaṛā (insc. 1395 A. D.) beside palaṅka (Puri R I) ; maṃga-rāja (Puri L III), tuṃgala (Puri L IV), siṃgāra (Puri L VI) ; śaṃkha (Puri L III, IV) ; laghaṃi for laṅghai (Puri R II)

ṃ+c(h), j(h) : O. Or. kuṃcca (EOLS 5.17) beside kuñca (17.7) ; paṃcāśa (EOLS 7.13) beside biñcaṇā (Puri L I) ; pāṃca, paṃca, pāṃccha (Inscr. 1271 A.D. OHRJ Vol. I pt. 3) for Skt. pañca ; saṃjhadhūpa (Puri L VI) cf. sajhaṃ (MP) (sandhyā), biṃjha (vindhya, EOLS, GBG)

ṃ+ṭ(h), ḍ(h) : O. Or. Māhāmaṃḍliku (-maṇḍala, EOLS 3.4), bhaṃḍāra (bhāṇḍāra, EOLS 6.9).

ṃ+t(h), d(h), n : O. Or. kaḷaṃttara (EOLS 3.7, 10) beside Kaḷantara (EOLS 1.17) ; samaṃdha (saṃbandha, EOLS 1.8-9) ; kiṃnarī for Skt. kinnarī (insc. 1395 A. D., JASB Vol. LXIV, 1895, also EOLS 7.32).

ṃ+p(h), b(h) : O.Or. saṃparadā (sampradāya, EOLS 42.4) ; khaṃbhāra (EOLS 7.22).

Almost all the eastern languages took this device of similar type, viz., UVP : gāṃga for gāṅga, kāṃdha for kāndha ; OB : saṃpunnā for sampūrṇa, iṃdibisaā for indriya viṣaya beside india, bhāṃti beside bhānti for Skt. bhrānti, lāṃge beside lāṅga for Skt. ulaṅga, kaṃkhā beside kaṅkhā for Skt. kāṅkṣā etc. VRC : taṃkā, jhaṃkāra beside jhaṅkāra ; Mid. Mai. : rāge beside raṅgiā etc.

Thus we come to the conclusion that in Māgadhan Apabhraṃśa, the mode of pronunciation of Skt. ṃ stands as follows :

(a) as -ṅ-, a velar nasal sound before fricatives and an aspirate -h-

(b) as a nasal glide-W͂- or-Y͂- between vowels or a closed consonantal glide forming a diphthongal combination with the preceding vowel.

(c) as pure nasalisation, possibly with lengthening of the preceding vowel.

(d) as a class nasal (ṅ, ñ ṇ, n, m) before the respective stop.

Notwithstanding the above situation, it is not very clear as to whether the *anusvāra* stood for merely a class nasal, full or reduced, or a glide, or simply a frank nasalisation. But as -ṁ- sometimes represented a class nasal before a stop, the group ṁ+a consonant may be paralleled in behaviour with an OIA conjunct of class nasal + a stop which in proto-NIA underwent a simplification with a gradual reducing of a nasal stop leading to compensatory lengthening as well as nasalisation of the preceding vowel.

In VRC we get such orthographical representations as -dã:ta, pã:ca, bã:dhala- beside -dānta, pāñca, bāndhala- and even gõṇtha (FM p107). As in UVP there is only the *anusvāra* to indicate both a class nasal (full or reduced) and a nasalisation of a contiguous vowel, it may be taken as granted that the language was vacillating between the reduced nasal and complete nasalisation stages, in the 12th-13th centuries, (UVP ff. 20). Bur in Old Bengali, the picture is more clear. To state the order of development in OB :

(i) A nasal conjunct remains without compensatory lengthening or nasalisation, viz., OB canda (candra), tanti (tantrī), bhanti (bhrānti), saṁbeana (saṃvedana) etc.

(ii) A nasal conjunct remains with compensatory lengthening of the preceding vowel, not nasalised, viz., OB cānda (candra), tānti (tantrī) bhanti (bhrānti), pāñca (pañca), bāndha (bandha-), āṅgaṇa (aṅgana) etc.

(iii) A nasal conjunct remains with compensatory lengthening and nasalisation of the preceding vowel, via., OB khũṇṭi Modern Bengali khũṭi, cf. OMai gõṇṭha.

(iv) A single consonant remains finally with compensatory lengthening and nasalisation of the preceding vowel, via., OB ã:su (aṃśu), tã:bolā (tāmbūla), bã:jha (vandhyā), sābeana (saṃvedana) etc.

In Old Oṛiyā such a vacillation is rare as the introduction of a full nasal was already established. To quote a few examples, O. Or. māṅgala (Puri inscr. R. V, Line 3, JASB Vol. LXII, 1893) beside māgala (inscr. in the reign of Padmanābha, OHRJ Vol. III pt. 1, 1954 p 40), sajhaṁ for sajhā, sãjha (sandhyā) for Mod. Or. sañjha, bārūbāra (vāramvāra, Bh ii, p 88) etc. Besides, one may get in modern Oṛiyā many words like -dānta, pāñca, kāndibā, bāñjha- etc. beside the completely nasalised forms like -ãtaṛa, ãta, kãsā- etc. (*see* pp. 16-17).

This goes to suggest that in the earlier stage, the class nasal, though present by itself, nasalised the preceding vowel, itself being reduced in pronunciation, but being fully re-introduced in proto-Oṛiyā.

In this perspective of Reduced Nasal Hypothesis, the function of the *anusvāra* (ṃ) may be judged. Whatever might be the earlier value of -ṃ-, it represented no doubt in the Neo-Māgadhan stage, a nasal glidic consonant forming as if a nasal conjunct, with a concomitant nasalisation of the preceding vowel and as

such -ṃ- represented sometimes a class nasal and sometimes a complete nasalisation. We can state the situation by comparing both the patterns (i.e., a nasal + a stop and -ṃ- + a cosonant) thus :

(a) Skt. sandhyā Neo-Mg. *sañjha, **sanjha*, Or. sanjha OB sā:jha etc.

(b) Skt. haṃsa Neo-Mg. *ha*w*~sa Or. haûsa B hā:s etc. Skt. māṃsa Neo-Mg. *mā*w*~sa Or. māūsa OB mā:sa etc. Skt. vaṃśī Neo-Mg. *ba*y*~śī Or. baiśī B bā:śi etc.

Thus, just as the reduced nasal (italicized above) developed into a full nasal in Oṛiyā, so Skt. ṃ as a closed consonantal glide, W/Y, acquired its value as u/i, the high value of the glide W/Y being always preferred by Oṛiyā unlike Bengali-Assamese, o/e. Perhaps, in a solitary example of Old Oṛiyā, an interchange of a reduced nasal and a consonantal glide of -ṃ- is seen to take place, viz., O.Or. bāeñchā (2 times in BGi), bāicha (BNG 8th. chānda) for Skt. vāñchā, the line of development being perhaps Skt. vāñchā, *vāṃchā Neo-Mg. *bā*n*chā/bā*y*~chā, bā*en*chā.

As regards the representation of -ṅ- for Skt. ṃ in the early languages, it may be taken for granted that actually it stood for the glide -W~-, particularly when we observe that ṅ/ñ served the purpose of a glide, W/Y~(compare Mid B śāṅal for *śāW~al<śyāmala, *see* p 101). Also a peculiar development of Oṛiyā -ṅg- to a frank nasalisation is possible only on such assumption, for instances,

O. Or. iāḷā-piāḷā (MBh M p 4, ChG), iyāḷā-piyāḷā (ChG) for Skt. iṅgalā-piṅgalā, Or. aûṭhi for Skt. aṅguṣṭhya where -ṅg->-ṅṅ->-ṅ->-W~-.

In conclusion, it may be presumed that already in the Neo-Magādhan stage twofold development of the pronunciation of -ṃ- prevailed : (a) as -W~- before a sibilant, sometimes being lost yielding to a frank nasalisation of the preceding vowel and sometimes being vocalised. (b) as -ṅ- before a velar stop, an aspirate -h- etc. But the latter was already generalised in the eastern languages while Oṛiyā has still preserved the alternative practice (compare Or. kāsā beside haûsa <Skt. kāṃsya, haṃsa etc.)

Regarding the orthography of nasalisation, Old Oṛiyā agrees with the other eastern languages. First of all, the complete nasalisation of OIA class nasal + *anusvāra* was indicated by the use of *candravindu* (ँ); for examples,

O. Or. saddibāê (sādhayitavyam, inscr. 1271 A.D. OHRJ Vol. I pt. 3), gītahî (Puri inscr. L VI, JASB Vol. LXII, 1893) bhuyā: (OHRJ Vol. VI pt. 1) cf. bhuiā:, bhuyā: (MP), svayê (svayam, KhB) etc.

But the use of *candravindu* in the early inscriptions, edited by K. B. Tripathy is very rare. "....the nasal sign is very oftern absent in the orthography of the inscriptions. Thus the spelling kuara, gā, bhui should doubtless be read as kuāra, gā:, bhuî corresponding to Skt. kumāra, grāma, bhumi. (EOLS p. 94 ff. 3). But the use of *candravindu* is to be found in other esatern languages, viz., OB hāû (aham), sājhê (sandhyā), mā:sa (māṃsa) etc, OMai -dā:ta, bā:dhala, pā:ca etc. (VRC).

Secondly, *anusvāra* stood for the final nasalisation in Oṛiyā and other eastern languages, viz., O. Or. āigāṃ (Puri inscr. Left I), āiṃgaṃ (Puri R II), āgyāṃ (Puri R III), āigyāṃ (Bhuvansewara inscr. R I) for Skt. ājñā: kebehoṃ (Puri R IV), bhumiṃ (inscr. 1395 A.D.), svayeṃ (svayam, KhB p. 50, RB p. 73) beside svayê (KhB pp. 20, 95) svaṃye (KhB pp. 27, 97); diaṃ (EOLS 27.6), muiṃ (19.6), sarbagyaṃ (MP), etc.; compare also OMai paropakāreṃ for paropakārê, satyeṃ for satyê (VRC); OAw khataṃ for khetã, hātheṃ for hāthê etc. (UVP).

Besides, the *anusvāra* also served as a nasalisation in the medial position, viz., O. Or. kuaṁra (MP) for kuãra (kumāra); sajhaṁ beside saṁjha (MP) for Skt. sandhyā; bigyāṁna (vijñāna, BhJ 11th skandha 10th ch.); kaṁsā (kāṁsya EOLS 5. 14) for Mod. Or. kãsā; saiṁtrisa '37' (SC p 31)) for Mod. Or. saîtrisa etc.

Thirdly, in Old Oṛiyā -ṅ- was sometimes employed to denote nasalisation, viz., pratigyāṅ (MP) cf. pratigyã: (PP p 48) for Skt. pratijñā; āgyāṅ (MP) cf. āgyã: (PBG) for Skt. ājñā etc.

Fourthly, a contiguous nasalisation was shown optionally. A nasal usually nasalises the preceding and also the following vowel; but in modern eastern languages, such a nasalisation is not indicated in writing. In the early documents of the eastern languages, there is much vacillation as to the proper place of nasalisation which goes to suggest the proximity nasalisation. For instances, *OAw* mã:jhā beside mã:jha, lã:jê for lājê, kã:ṇa for kāṇa, mã:kaḍi for mākaḍi etc. *OMai* kã:na, māñusi for māusi, bã:ndhala for bāndhala etc. *OB* niṁda for *nîda beside nida (nidrā). *O. Or.* āigāṁ with its variations in the early inscriptions (*see above*), kṛṣṭa(ṁ), kriṣṭa(ṁ) for Skt. kṛṣṇa; māṇiṅka < * māṇîka (māṇikya); baiṣṇama <*baiṣṇaW~ã (vaiṣṇava), suniā: 'a gold coin' (sauvarṇika, GBh), mahîmā (ChG, BG, BSAS, BP, GBG), svaṁye, svayeṁ' etc. for Skt. svayam (*see above*), muhã:sa 'attraction' (mohapāśa, RM p 57 etc.).

In modern Oṛiyā too, this kind of nasalisation is found which is not always indicated in writing. For examples, Or. muhã:ṇa 'junction of two rivers' (*mukha-ayana) cf. B mohānā; kãṇa for kaṇa 'who'; mû 'I' but compare muhî: muã: (modaka) cf B moyā; niã: (nidāgha); maîṣa (mahiṣa).

(B) OIA single intervocal -m- to nasalisation with or without glide element: OIA intervocal -m- is treated in threefold way:

(i) OIA intervocal -m- becomes mere nasalisation (~) in Mod. Oṛiyā.

(ii) It represents sometimes -W~- in Old Oṛiyā and Old Bengali; and possibly the palatal modification of the glide, from (W~) to (Y~) took place as early as Old Oṛiyā and Old Bengali. The vocalised forms û, î (<W, Y) in Modern Oṛiyā confirm the same fact.

(iii) It becomes Modern Oṛiyā u, û through * W~, just as i, î <*Y~.

(i) *Nasalisation of intervocalic -m- > W~ > ~ :*

Examples: Or. dhuã: (dhūmaka pk dhūma, *dhūWã) Jn dhû: Mai dhû:ã: Bh dhûã:, dhuã: Ass dhowā: B dhõyā; Or. bhuî (bhūmi pk bhūmi) OAw bhûi:, bhuî

for *bhuWî Aw bhuî Ass bhũî B bhui Jn bhui, bhõya Mai bhûiã: ; Or. sāî (svāmī pk sāmi Ap sāmia) OAw sāmi OB sāmi Early Mid B sāmī where -m- stands for -W~- B sã:î Aw sãî: Bh sã:î: Mai sã:ẹ; Or. gãã:, gã:, (grāma pk gāma) Jn gã:va OAw gãû. gã:wahuta, gã:û: Aw gã:u Mai go~, gão Bh gã:w Ass gãõ, gãw~ B gã: : Or. bã:, bãã: (vāma- pk vāma) B bã: Ass bã:o; Or. gosāi (gosvāmī pk gosāviã) OAw gosã:wi, gosāwî Mid Aw gosãî: OMai gosãyiña for gosãyiyã, Mid Mai gosañuni (Vid) Bh. gosã:î: B gõsãi Jn. gosāvī Ass gosã:i ; Or. kaãḷa (komala pk. komala) Jn kovalā Ass *sts.* kumlīyā; Or. caãra (camara pk. camara) Mai cara, cora: Bh cãwãr. cãwar Ass cõwar B cāmar; Or. saṁkha from earlier *sañkaWã, *sañkaã (saṁkrama pk saṁkama) OB sãṅkama for *sãṅkaWã B sã:ko OMai sã:ku Mai sã:khu Ass sã:ku; O. Or sãã:ntā (EOLS) Mod. Or sããnta 'master' (sāmanta) ; Or. puniã (purṇimā Pā punnamā).

(ii) *Old oriya m, b for -W~- and e, y for -Y~-* :

Examples: O.Or. jamāi beside juãi (MBh G p 10, Ai p 6), jvãi (MBh G10) Mod. Or. joî, jaî, juãî (* jaW~ãi, joW~ãi, juW~ãi) (Skt. jāmātā pk. jāmāuya) OAw jamāi, jaW~ãi Jn jãvãī Mai jamãẹ, jamaẹ Ass jõwãi B jãmãi ; O. Or. kumara Mod Or. kuãra (kumāra pk kumara) OAw kuãru Mid Aw kûara Mai kûãr OMai kumara Bh kûwã:r Ass kõwar B kumār, koṅār, Mid B kuṅār, koṅār, kõyār; O. Or. yāmaḷā (MBh Sv. 28) Mod Or. jãã:ḷā (yamalau, yāmalaṁ pk jamala), Sarvānanda jumāḷa Mai jãuã: O. Or. nāma Mod Or. nãã:. nã: (nāma pk ṇāma) Jn nã:va Mai no~, Aw nã:u Bh nã:w~, Ass nāo B nām and nã: in explotive (cf ODBL p 527); O. Or. rumi (MBh K p 6) (roma-, loma pk ṇoma, loma) OMai rõa for roWã Mai roiã: Jn lova Aw rõwã: Bh roã: Ass nom B rõ, rõã; Sometimes simply -b- developed from m=W~in Old Oṛiyā; for examples : O. Or. thāba for *ṭhāWã, *ṭhāYã (sthāma Ap ṭhã:u) Mod. Or. ṭhãî but post-positional affix -ṭhaû, ṭhû Mid Aw ṭhãû: (Jāyasī) Aw ṭhaur 'space' OB ṭhāvī B ṭhām 'form' Jn ṭhãya, ṭhã:ya ṭhāva Mai ṭho~, Bh ṭhã:î:, ṭhã:w Ass ṭhāw, ṭhāi, ṭhāma (*see* also p. 105). The use of m for -W~- is a frequent occurrence in Old Oṛiyā, for examples, O.Or. baiṣṇama (Puri insc. Left VI JASB Vol. LXII, 1893) for baiṣṇaW~a (vaiṣṇava) nomā (Puri Rt. I) for noW~ā cf B nooyā Ass nowā 'to take' ; bhūmiṁ for bhuWî (Insc. 1395 AD), dhāmai, dhāme for dhāWãi, dhāWê (MBh B p 91) beside dhāê (*ibid* p 125), yāmanika (MBh B p 81) for yāvanika, Mod. Or. jhāma (also RB p 46) beside jhāî 'burnt' (kṣāma, *jhāWã, jhāYã) etc. (*see* also p. 103 for further examples).

On the other hand, -e- or -y- was employed for Y,Y~-glide<m (*see* p. 43) ; for examples, O. Or. dayeṇā (MP, PP, RM), dayaṇā (RM 1st Ch.) (damanaka) ; ṭhāî (sthāma) *see before* ; O. Or. aêḷā (MBh U99, Md 56) ayêḷā (MBh, GBG) Mod Or. aãḷā, ãḷā (āmalaka pk āmalaya) Jn āvalā Mai ãrā, orā, arā Aw aurā Ass āmrā Bh ãwãrā, awãrā B ã:olā, āmlā ; O. Or. bhũyā: beside bhũiā: (MP) (bhaumika).

(*iii*) *Proto-Oriya *W~, *Y~ > Mod Or û, î* :

Examples ; Or. māhunta (mahāmātra, mahāmatta *mahāWātta) OAw ma-hãuta, māhãutu Mai mahãuta, mahãutha Ass mãut B māhut ; Or. sãûḷā (śyāmala pk sāmala) Jn sāula, sāvalā Mai sāmara, so:ra, saura, saora Bh sã:war

Ass sã:o (śyāma) Mid B śãñal Aw sã:wã (śyāmāka)' a wild rice'; Or. bhaũrī f. of bhaũra (bhramarī pk bhamarī) OMar bhavara, bhavarāsī: dat. sg. Mid Aw bhavãra (Jāy) Mai bhaurī, bhamharā, Ass bhaîrā B bhomar <*bhaõrā Bh bhãwrā; Or. kãũri (kāmarūpa) OB kāmaru for kãWārū Mid B kāṅur for *kãWûr. OMai kāmarū-wāla Mai kāmaru Bh kawārū B kāṅur; also Or. naîbā (cf. namati pk ṇamaī). Or. dāuṇi (dāmanī), Or kādua (kardama), bãũśa (vaṁśa, *bãWāsa), mãũsa for (māṁsa, *mãWāsa,) etc. *see* also p. 95.

Contextually the orthography of nasalisation in Oṛiyā and other eastern languages may be discussed here :

In Modern Oṛiyā, the nasalised glide, either -W~- or -Y~- is not shown. In old Oṛiyā, it was often shown by m, b<v as W-glide or -o- for Y-glide (*see* p. 100.)

In Old Bengali, the same -m- was used for the glide W/Y (cf. OB sāṅkama, sāmī, kāmaru). In early Mid. Bengali, either *candravindu* or *candravindu* with -ya- was used (cf ŚKK kõarī, kõyarī for kumārī ; kõali, kõyali for komala-). But the old system of orthography for Y/W glide was used simultaneously (cf. ŚKK sāmī). But here only, the letter -ñ, ñ~- was introduced first (cf. soñār, gosāñī). From 15th century onwards, -ṅ- and -ñ- were established for the sounds -W~- >Y~ (cf. śāñal for śãWāl<śyāmala). In modern Bengali, there is no such use of -ṅ- or -ñ- but simply the *candravindu* (ঁ). [cf. ODBL p 519].

In UVP there are some cases where *anusvāra* simply represented -W~-, for examples, bhuî, sõari for bhuWî, soWãri. But in other cases, there is confusion. In the *mss.* there was no device for b or w and only -b- was sufficient for the two. Still the sould -W~- was indicated either by *anusvāra* or -b- for -w- and -m- (cf. raṁba for rãW~a, nama, naba for naW~a. jamāi for jaW~āi, jemma tema for joW~a toW~a or, sāmi for sãW~i etc.) *vide* UVP p 13.

In VRC, sometimes -v- or -ñ-, m- were employed (cf. kādava for kardama, gosāñiña- for gosãW~iê, romanta for rovanta) ; but in many cases, they are not shown (cf. cãdoã for cãdowā, rõa for roW~a=roma) (*see* VRC p xliii).

(C) OIA single intervocal -n- to nasalisation with or without glide element :

We have also other cases of nasalisation of vowel through contact with original -n- which dropped out. In Oṛīyā and other eastern languages, process of nasalisation is complete in final syllables, for examples, thé instrumental sg. affix -ĉ- <OIA -ena pk eṇaṁ, Ap eṇaṃ, eṁ, ê found in all the old documents of the eastern languages. Other examples from Oṛiyā are : chãê 'by self' (svena), mû (*may'ena, mayā) O. Or. muiṁ (EOLS); O. Or. svahasteṁ (EOLS 51.9); compare also OB begê (vegena) lîlê (līlā,-ena), michê (mithyā, -ena) bohê (bodhena) etc. OAw. hãthê (hastena), putê (putreṇa) etc. OMai hãthê (hastena, VRC p 63), bilāsê (vilāsena, VRC p 9) madhurê (madhureṇa, VRC p 69) etc.

But in medial position, it has developed into a corresponding class nasal associated with the plosives, for instances, n+k>ṅk, n+t>nt, n+h>nh etc. except Bengali where pure nasalisation took place, viz., the genitive plural

affix -ānām>MIA ānaṁ> -ā̃: -in Bengali but -ṅ- (with gutturals). n (with dentals and -h-) in Oṛiyā, Assamese etc. The development of third personal pronoun (honorific) *tānām=tāsām>MIA tāṇaṁ, tāṇa, *tāṇhaṁ [where *tāṇhaṁ may be a derivative of gen. pl. tāna + gen. pl. *tāhaṁ=tāsām or, instr. pl. tābhiḥ> tāhi]>B tā̃:(hā)- dial. B tā:na- 'their'; Or. tā(hā)ṅ(kara) and sometimes extended to Nom.-Acc, a blend of instrumental and genitive, as -nt-as in 'āmbhanta sneho paḷiḷā' (MBh B. p 80, also in G p 25) or, tāhānta (MBh K p 45, Sl p 7) Ass the honorific gentives tā(hā)na, Eastern Ass tā(hā)ṅka tā(hā)nta (FA ff 681, 684, ODBL pp 303, 306 Bh. I p 131).

The employment of -an. anhi- in Bhojpurī (tohan, tohani, tohanikā). -anhi in Old Maithilī (cf. tanhika *vide* VRC ff 27, 45) and -an(h)i in Modern Maithilī (tani, tanhi, tanikā) (*vide* FM ff 619 Grierson : Mai. Gr. ff. 159) for plural affix and oblique instrumental and honorific third personal pronoun, may be explained in the same way. The affix -(a)nhi used for oblique plural and Nominative plural is a blend of instr. pl. -hi of Apabhraṁsa<-bhiḥ of OIA and of genitive pl. affix -(a)ṇa<-ānām of OIA (VRC ff 27).

In Old Awadhī too, the gen. pl. gave the oblique plural tonha <plural nominative of instrumental origin tobhiḥ> MIA tehi, tahi>to+MIA tenaṁ=OIA *tenām=toṣām which was transferred to Nom-Acc. plural cf. OAw puta-nha- (*vide* UVP pp 40-41, 51), compare Mid Aw tinha, tonha, tinh-, tin (Jāyasī, Tulsidās) and Mod Aw tin, tinh (Saksena : E. Aw pp 180, 189) Hindī tin etc.

Thus -ān- in modial position represents : -ā̃:- in Bengali; (ā)ṅk.(ā)nt, in Old & Mod Or.; (ā)na in Ass.; ṅk, nt in Eastern Ass.; (a)n(h)-(i) in B hārī and Kośalī.

(D) Loss of nasalisation from m/n in some words :

Examples : Or. kādua (kardama) Bh kānõ B kādā OMai kādawa Mid Aw kā̃:dau (Jāya.i) Mai kādõ, kādabā ; Or tiuṇa, tiaṇa 'curry' (temanam cf pk timmaṇ, timaṇa) B Ass titi- 'to be wet'; Or. juāṇī (yamānikā) B joyān, jon ; Or.cāuḷa (*camala Deś cāulā) Ass B cāul B cāl Mai cāura OB tāula ; Or. punei (paurṇamī) ; Or. dāu 'revenge' (dāma-) B dā:o ; Or dayaṇā 'a particular kind of flower' (damanaka- pk damaṇaa) Ass damanā ; Or dāuṇi 'rope for tying bullocks' (dāmanī pk dāmaṇī ; dāvaṇa) B dāmni ; Or niāḷī (navamallikā if not from nīpāvalī); Or. postpositional affix -ṭhāru, ṭhau, ṭhû (sthāma-) etc.

(E) Nasalisation sometimes causing a development of class nasal :

Examples : O.Or. aîṭhā Mod Or. ainṭhā (āmṛṣṭa) Mai ā̃iṭha B êṭo ; Or ruma, O.Or romāḷī (BC 30) (roma, romāvalī) ; Or. māhunta (mahāmātra, *mahāwātto) where -W~- is changed into -n-. cf. B māhut Mai mahāut(h)a etc. *see* p. 100 ; Or. gamāra beside guā̃:ra (grāma-dāra-Pā gāmadārako) Aw gā̃wār B gõyār etc. Or. nimatā (nimantra-) Mai neõtā etc. Or. pauma beside paduā̃ (padma pk paduma) ; Or. ḍempha 'stalk' (darbhaṇa ?) cf B ḍêph (dial) Mai ḍephani Ass ḍem ḍeukā' a kind of herb' ; Or. ghuṅgura (onom. formation of gharghara) B ghuṅur ; Or. sampibā 'to surrender' (samarpaya-) B. sā̃pā Ass sumpiba ; Or. gũ:ṭhāḷa beside gainṭhāḷa (granthi-) ; Or pimpuṛi (pipīlikā) B. pîpṛe ; O.Or āñcabana (SC) beside ācobana (RB 38, SSN 24) for ācamana ; kimpāi (SNG 17 etc.) for kipāî (ātmane).

(F) Spontaneous nasalisation of w/v>W~>m :

The reverse process of nasalising spontaneously a -w- sound either original (i.e., < -v- in Skt.) or derived (e.g., from -p- of OIA) is also found in both *tbhs.* and *stss.* This feature is inherited from MIA by NIA.

The old Oṛiyā examples viz., baiṣṇama for *baiṣṇaW~a<vaiṣṇava or nemā for *neW~ā etc. have already been noticed (*see supra* p. 100); compare also yāmanika for yāvanika, dhāme dhāmai<dhāve, dhāvai etc. ; also O.Or. kachapa (JASB Vol. LXIV, insc. AD 1384) Mod. Or. kaĩcha (kacchapa pk kacchabha, kacchava) Jn kāsavi f. Mai kāchu Aw kachuā Ass kācha Bh kachuā B kāchim ; O.Or gāṇḍīma (gāṇḍīva, BGi, RB 37) Yamana (Yavana, L 97). Also in verbs, jāṇima (BGi, RB41) for jāṇiba, ghenimā (BGi) for ghenibā 'to take' (gṛh-), nema (for nebā RB 43) śuṇimi (RB 54, PBG) for śuṇibi, śuṇimā heu (AKG) etc. (*see* also p. 100)

(H) SPONTANEOUS NASALISATION OR INSERTION OF CLASS NASAL :

Dependent nasalisation was due to the presence of a nasal sound in the original word itself, as has been noted before. But in Oṛiyā, as in other Indo-Aryan languages, there are words which have developed nasalisation not connected at all with the nasal elements in original forms. This phenomenon has been termed as 'Spontaneous nasalisation'. This tendency is found in MIA in which optionally a double consonant could become a nasal plus consonant, for examples, OIA jalpati > pk jappai, jampai ; vakra > pk vaṁka, darśa >pk daṁsa, takṣa->cañcha, sparśa phaṁsa etc. (cf Pischel : ff 74, Grierson 'spontaneous nasalisation' JRAS 1922). But in NIA, there has been a regular increase of the process.

Different explanations of this phenomenon have been suggested. Dr. Bloch (LM ff 70) and Dr. Turner (JRAS 1921 p 344) regard this nasalisation as due to the length of the vowel which according to Dr. Bloch spontaneously develops a nasal resonance. Differing from this view Sir G.A. Grierson says that "such spontaneous nasalisation could occur only if it was introduced in the present stage of development of the MIA vernaculars in which the vowel would become long. But this is not the case ; for the nasal was introduced not later than the Prākrit stage and has nothing to do with the length of the vowel". Dr. Chatterjee is of opinion that this kind of nasalisation is due to the dialectal variations ; as in modern times with certain languages and dialects, in MIA too, certain local forms of speech might have developed this tendency ; or, it has been suggested that this type of nasalisation is due to a very old tendency in IA, probably imposed upon it by the Non-Aryan speeches, towards articulating through both the mouth and the nose and thereby bringing in a nasalisation.

At present, all NIA languages do not entirely agree in details, although all share in the results of this general principle or preference of MIA.

Examples of Spontaneous Nasalisation :

Or. māhāṅgā (mahārgha- pk mahagga) Ass mahaṅā s/s. marag, but nasalisation not in Jn Mai Mid. Mai B. Or. māṅkaṛa (markaṭa pk makkaḍa Ap makkala) cf. OAw mā:kaḍi Jn māṁkaḍa, but in Bh Ass B Bi and in other branches of NIA there is no nasalisation. Or niā: 'fire' (n'dāgha)-nasalisation possibly through the influence of MIA giṇi : Or. siibā 'to sew' (cf. sīvayati pk sīvai) cf. Ass siba ; Or. ceibā (cf cetayati pk ceaï) cf. Ass ciyā, ciyār 'to hint' but ciyāri māt 'to call aloud' but nasalisation not in OB Jn B ; Or. chuībā (chupati pk chuvaï ; to Dr Chatterjee *spṛśati, but S. Sen suggests -kṣubh-) cf. B chõyā but OB choi, chupaï OAw chua Bh chui Ass choiba ; Or jhāû (jhāvuka- Pā jhāvuko) Ass jā:u but B jhāu, Mai jhauā ; Or. jhāñjha (cf. jharjhara 'drum') cf. B Bh jhā:jhar Mai jhā:jhara ; Or. thaṇṭa (troṭi poss. with the inf. of tuṇḍam) nasalisation also in Mai Ass B ; Or. thaṇḍā 'cold' (stabdha pk thaddha, thaḍḍha, ṭhaḍḍha) nasal. also in Bh B Mai Aw.; Or. āṇṭhu 'knee' (cf. asthi, aṣṭhi-vantau Pā aṭṭhi) nasalisation found in all the Eastern languages. Or uñcā (ucca pk ucca) cf. Jn uṁca OMai uñca OB ûcā Mid Aw û:ca (Jāy.) nasalisation also in Bh Mai except Ass ucalā 'raised' : Or. kaîṭha (kapittha pk kavittha, kaviṭṭha) nasl. also in Bh, but not in Jn kaviṭha and Aw B Ass ; Or. kaṅkaṛā (karkaṭa pk kakkaḍa) nasalisation also in Mai Ass B Bh. Or. kaîcha cf. O.Or. kachapa (JASB Vol. Lxiv inscr. A.D. 1384) (kacchapa pk kacchabha, kacchava) cf. B kāchim but nasal. not found in Jn kāsavi f. and Mai Aw Ass Bh ; Or. kāñca (pk kacca lw. Skt kāca) also in B kā:c but not in Mai Ass. ; Or. chuñcā (chuchundara) B chũcā ; Or. cāñchibā (cf. takṣati pk tacchaï, takkhaï) nasalisation also in B Ass Bh ; Or. chañccibā (cf. śauca) nasalisation also in B Mai ; Or pahañcibā (pk pahuccaï) nasalisation also in B Ass Bh Aw Mai ; Or. biñcaṇā 'a fan (cf. vyajana) but Ass bic 'to fan' bicanī cf. Śkk bici 'fanning' ; Or. ḍaṇkuṇī (ḍākinī) but nasal. not in Ass B Mai Bh. ; Or. bāmpha (bāspa pk bappha Deś. bapphā) but Jn vāpha B Ass bhāp Mai bhāpha Bh Aw bāph ; Or. phuṅkibā (cf. phutkaroti pk phukkaï) nasalisation also in B Ass Jn Aw Bh ; Or. phā:ki also in B (cf. phakkikā pk phakkiā) but Ass phākaṭi ; Or. ghāṇṭibā (cf. ghṛṣṭa-) cf. OB ghāṇṭi ; ghā:ṭ in B Ass Mai. Or. pimpuṛi (pipīlikā) B piprā OB pimpiḍā but nasalisation not in Mai Ass. Or. baṅkā (vakra) nasalisation also in B Ass. Or caûri 'courtyard' (catvarikā), pahāribā 'to swim' cf. OAw paharê (praharake), cāhîbā 'to see' (cakṣa-), dhāîbā 'to run' (dhāva-) etc.

Spontaneous nasalisation in onomatopoetic words :

Or. khākāra 'phelgm', khākhā, 'cough' cf. B khā:kār 'hawking' (cf. Skt khāṭ-karoti 'hawks' *vide* ND Pā khakkāreti) ; Or. phuṅkibā (cf. phutkaroti pk phukkai) cf. B phûkā Ass phûkiba Jn phûkuniyāṁ, phuṁku Aw phû:kab B phûk ; Or. ghuṅgura (onom. formation of ghargharа) Ass ghuṅgarā B ghuṅur ; Or. ṭhuṅkibā cf. B ṭhokā etc.

Nasalisation through intervocal -m/n- :

(*see before* pp 99-102)

(III) THE PROCESS OF DENASALISATION

Though there is the development of nasal in non-nasal compounds in MIA and notably in NIA, there re instances of dropping the nasal even in MIA and th s has continued down to NIA, cf. MIA vīsā, tīsā, sīha (OIA viṁśati, triṁśat, siṁha) etc.

Examples : Or. pochibā (cf. proñcha- pk puñchai Deś. puṁchai) cf. Mai pochaba but Aw põ:chai B põchā ; Or kichi (kiñcid Aś kiṁchi, kichi cf. also kaścid) OAw Bh B Ass kichu Mai kicchu ; Or. śikuḷi beside śiṅkuḷi (śṛṅkhala pk saṅkala, saṅkhalā, siṅkhalā) OB sikala B śikal Ass śikali but Jn sāṁkhala Bh sĩ:kar Sarvānanda : siṅkaḷi ; Or bhitara (abhyantara pk abbhintara) nasalisation lost also in Jn Aw Mai Bh Ass B. ; Or bhijibā 'to be wet' (cf. abhyañjati 3 pl. Pā abbhañjati) also bhij- in Jn Aw Mai B Ass Bh ; Or. sisu, sisuā 'a particular kind of tree' (śiṁśapā pk sīsavā) nasalisation lost also in Ass B but cp. Mod Mar. śisav ; Or. turita 'in speed' (tvarant pk tuvaranta) Aw turat B tarit, turit but Mai turanta Bh turant. Ass turante ; Or cui 'kiss' (cumba-) also Ass cui but Jn cuṁbi OAw cũ:wa Aw cūmb Mai cummā, cumo:na Bh cūm B cumā ; Or. pālkī (paryaṅkikā) also in B Ass Aw etc. where nasalisation is lost. Or. loṛe 'searches' OB loṛiba, luṛiu (luṇṭha-) etc.

In the following cases also Oṛiyā shows denasalisation in the forms where the eastern languages show nasalisation : Examples : Or. phāsa, phāśī cf. O. Or. phā:śi (JC) (*spāśa, pāśa) but B phā:s is possibly a contaminated form < phā:da + pāśa *vide* Bh. I. p. 188 cf. Jn phāṁsa Bh phā:s Mai phā:sa Ass phā:sā; Or khojibā 'to search' (*khojja 'footprint') cf. B khõjā ; Or. kuṛiā (kuṭikā pk kuḍī) OB kuṛiā B kûṛe ; Or. kacā 'unripe' (<?) B kā:cā Ass kā:ci 'curdled (of milk)' ; O.Or. kaṛhi 'bud' (kora + kośa) Bh kõṛhī Ass kûṛi B kûṛi ; Or. oṭha (oṣṭha pk oṭṭha) Jn oṁṭhī Ass õṭh Bh õṭh Mai õṭha Aw õṭh ; Or. iṭā (iṣṭakā f. pk iṭṭā) Ass iṭā B ĩṭ Mai ĩ:ṭa Bh ĩṭ ; Or. guiṭhā cf. goiṇṭhā (Balasore dialect) (goviṣṭhā-) Mai goiṭhā but Bh goĩṭhā B ghûṭe Ass (gobara)-khûṭi ; Or. kàkai (kaṅkatikā) B kā:kai ; Or. ākhi O. Or. ākṣi (MBh, ChG) [akṣi pk akkhi] B ā:khi ; Or. kukuṛā (kukkuṭa) B kûkṛā ; Or. cuṛā (cipiṭaka) B cĩṛā etc.

In some cases OIA -m- through -W~- becomes denasalised ; for the treatment *see before* p. 102.

In earlier documents of Oṛiyā the employment of -b- for -m- showed the process of denasalisation, for examples, dabāḷu (for damāḷu RB p. 71) 'a drum', bābana (for vāmana, RB p. 49) 'a dwarf', nirbāṇa (for nirmāṇa, PGB), ācobana (RB p. 38, SSN p. 24) āñcabaṇa (SC 18) [ācamana], sambhraba (sambhrama, JC) etc.

The process of denasalisation is best found in Oṛiyā numerals like most of the modern Aryan languages : Examples : O.Or. batiśa (dvātriṁśat Pā battiṁsa pk battīsaṃ); Or. bāiśa (dvāviṁśatiḥ Pā dvāvīsati, dvāvīsa pk bāvīsaṁ Ap bāisa) ; O.Or. cābiśa (MBh U p. 89) Mod Or. cabiśa (cf. caturviṁśati- Pā catuvīśa pk caüvīsaṁ Ap covīsa) ; Or. cāḷiśa (catvāriṁśat Pā cattāḷīsaṁ, cattārisaṁ pk cattāīīsaṁ, cāyālīsaṁ Ap cālīsaṁ) ; Or. chatiśa (cf. ṣaṭtriṁśat Pā chattiṁsati pk chattīsaṁ) ; Or. tetiśa (cf. trayastriṁśat Pā tettiṁsa pk tettīsa) ; O. Or. ekoiśa (ekaviṁśati Pā ekavīsaṁ pk ekkavīsaī, ekkavīsaṁ) etc. *see* also pp. 88.

CHAPTER IX

VOWEL-MUTATION OR UMLAUT

Vowel mutation or Umlaut is the modification of a vowel through the influence of another vowel or semi-vowel of a different quality occurring in a following syllable. This phenomenon was first observed in the Teutonic languages. All West and North Germanic languages show Umlaut, though in widely varying degrees and at widely separate periods ; some of the mutations even go back to the Primitive Germanic period (e. g. IE esti OHG ist ; O. Eng midd <*medyo etc. (cf Priebsch & Collinson : The German Language p. 81). Since the discovery, this type of phonetic change in similar directions in other languages has been classed as instances of Umlaut.

The vowel change due to the assimilatory influence of a sound in immediate proximity or, in a neighbouring syllable is a characteristic feature of Bengali, Assamese and Oṛiyā, the history of which goes back possibly to the 12th century. In Oṛiyā, the back vowels a, o, u may be mutated to the front vowels e, e, i respectively under the influence of -i- or -y-. Under the same influence as also under the influence of -u-, or -w-, the mid-vowels -e- and -o- may be raised to the high positions of i and u. Conversely, -i- and -u- may be lowered to -o- and -o- before the lower vowels e, a, o.

But Oṛiyā is distinguished from Bengali and Assamese in as much as it has not altogether developed further contraction of the mutated vowels, for examples, in Bengali, the contraction of the epenthetic vowel (*ai, *au> -o- ; karito>* kairte> korte ; *cakhu> *caukhu> caĩkh> cokh etc.) or, the change of -āu-> *āi> -e- beside āi> -e- (skt avidhavā pk avihavā> āiha> eyo, Or. ahia ; skt ākulaka> pk āula> āulā> B *āilā> elo etc.) ; in Assamese too, the change of a + i, a + u to -a- (ɔ) or -au-> *ai> a'i(*ɔi*) and -a- (ɔ) (viz mɔra <*maira <maūra <mayūra ; cɔdhya beside caidhya <*caiddaha, cauddaha <caturdaśa etc.)

Of the several types of Umlaut discussed below, some go back to early Oṛiyā, while of others, faint indications may be conjectured in MIA, but others are of modern growth and characterise modern Oṛiyā only. The following are the principal types of mutatioin in Oṛiyā :—

(i) -ai-> Old and Modern Oṛiyā -ei- in polysyllabic words [note Ass. a' (= ɔ), a and B. -o- are sometimes originated from such -ai- *vide* p. 57]

The tendency goes back as far as 15th c. A. D. in Oṛiyā ; for examples, O. Or. punei (Skt. paurṇamī, 13. 12, EOLS) ; karei (Skt. karoti, 37. 4, EOLS acc. to the reading of M. M. Chakravarty) beside karai (12. 8. etc.) ; deitāpati (for daitāpati, MP) ; saṅgei 'company' beside *tatsama* saṅgati (GBG). Modern Oṛiyā : baṛhei (vardhaki), aṛhei (ardha-trika), rosei (rasavati), sateiśi (saptaviṃśati) etc. [For an elaborate treatment *see* p. 72]

(ii) -āi-> Or. -ei- possibly through -ai- (note Bengali often shows -e- in such cases, *see above.*)

Though such mutation is very widespread in modern Oṛiyā, the old Oṛiyā inscriptional evidences never betrayed such changes. But it seems that the change became a regular practice during the late 17th century [cf. O. Or. ṭheî for ṭhāî (Skt. sthāma) *vide* PG pp. 22, 43]. Perhaps, the change started with the shortening of the diphthong -āi- to -ai- and then was turned to -ei- as above. For, in the poetical works of Bhima Bhoi (19th century) the letter *-ai-* (ऐ) is often used for -āi-, viz., aṛh*ai* (SC p 33) for mod. Or. aṛhāi (ardha-trika) cf. OMai. aḍhāya Bh. aṛhāi B. āṛāi Mai. aṛhaę ; sat*ai*śa (SC pp. 33, 36) for mod. Or. satāiśa (Skt. saptaviṁśati pkt. sattāviśa Late MIA sattāisa) cf. Bh. satāis Mai. satāiśa B. sātāś ; aṭh*ai*śa (also MBh Md p. 24) for mod. Or. aṭhāiśa (Skt. aṣṭā-viṃśati) cf. Mai. aṭhāiśa Bh. aṭhāis B. āṭhāś. The shortening of such long diphthongs is also a noticeable feature in modern Oṛiyā (*see* p. 56).

Examples in modern Oṛiyā : peî for pāî 'for', baṛei for baṛāi 'pride', also such causative verbs like haseibā, kandeibā, kareibā etc. (for a detailed treatment *see* p. 72).

(iii) -ai-> -oi-> Or. -au- ; also -oi->Old Or. -au- (written in Old Oṛiyā often as *-au-* letter), compare -ai-> -o- in Bengali and -ai-> -ɔ- in Assamese.

This phonetic habit is confined to early Oṛiyā. Beside the original -ai- <pkt. ai, sometimes proto-NIA -aWi- <pkt. avi, awi is turned to -oi- through the associative influence a labial which is also subject to the above change (*see* also under "Contraction of Vowels In Contact", pp. 72-73).

For examples : O. Or. haroi (harati, 33. 9, 40. 16, EOLS) beside harai, har*ai*, hari ; O. Or. h*au*ba for hoiba (16th c. A. D. OHRJ Vol. V No. iv, 4th inscr.) ; O. Or. h*au* beside hoi (Srijanga Stone Pillar inscr. of 18th c. A. D. OHRJ Vol. VI No. iv. p.249); O. Or. j*au*tiṣa (PP etc.) jaütiśa (TB etc.) for *joitiṣa (Skt. jyotiṣa) ; O. Or. ek*au*śa (BSAS 4th chānda, Bh. i. p. 7, SNG p. 3) for mod. Or. ekoiśa (also in MBh, SNG p. 25, Bh. i. p. 8) from earlier *ekaWiśa (Skt. ekaviṁ-śati) cf. Bh. Aw. ekais Mai ekaisa ; O. Or. k*au*na (acc. to the reading of S. Rajaguru, OHRJ Vol. V No. iv) but compare k*ai*na (to Dr. Tripathi, 49. 2, EOLS) for *kaina, *kainya (Skt. kanya-) ; O. Or. dhaürya (UBh p .67, RB p. 46 etc.) for Skt. dhairya. Mod. Or. bhaüṇī (Skt. bhaginī) but compare bhayeṇī (BA, RM), bhayiṇi (1271 A. D. inscr. OHRJ Vol. I No. iii), bhaīṇī (JC).

(iv) -oi-> Mod. Or. -ei- possibly through -ai- :

In some words of frequent uses, the tendency is best seen in modern Oṛiyā ; for examples, Or. heici beside hoici 'has become', hei for hoi 'becoming', heithilā for hoithilā 'was done' etc. from Oṛiyā verb 'hoibā' 'to be' ; Or. gā-dheibā beside gā-dhoibā 'to wash, to bathe' (cp. gā-dh*ai*bā in SC p. 69) ; Or. uṇeiśa (Skt. ekonaviṁśati) where -ei- is possibly derived from earlier -oi- (cf. ūṇoiśa in MBh. U. p. 6) ; Or bhiṇoi beside bhiṇei (Skt. bhaginīpati pkt. bhaiṇīvai) ; Or. gharoi beside gharei 'related to house, secret' (Skt. gṛha, -ika) etc.

(v) -au-> Old Oṛiyā -eu- ; also -ou-> -au-> Mod. Or. -eu-, compare Ass. ɔ, o<*ai <au ; B. -o- <ai, au (*see* pp. 57, 74).

The phonetic change au>eu is seen to take place in few Oṛiyā words which are supposed to be relic forms. For, the type representing the change of -a- to -e- before an -u- in the next syllable seems to go back to MIA although examples are sporadic there, e. g. MIA neura (Skt. nupura, *napura), gendua (Skt. kanduaka) ; also Pā. pheggu (Skt. phalgu), deṇḍubha (Skt. ḍuṇḍubha, *ḍaṇḍubha) etc. Traces of this change may be detected in other NIA languages also, namely, the common NIA word neula, neura 'a mongoose' (Skt. nakula), B. khêjur (Skt. kharjura) cf. Ass. khejur Or. khajuri, Mai. kehuni (Skt. kaphoṇi) cf. B. kanui Or. kahuṇi etc.

The few forms showing the change of au> eu in Oṛiyā are : Or. śeuḷa (Skt. śakula pkt. saula) cf. B. śaul, śol Ass. sa'l [x ɔ l] ; Or. neuḷa (Skt. nakula) cf. B. neul Bh. neur etc. Or. *kauṇ*asi 'someone, something' but compare O. Or. keûṇi (KhB pp. 37, 57, 111 etc.) beside keuṇi (KhB p.5), kaûṇasi ṭhāre (KhB p. 110), also kehuṇi (NC p.31, RB p.87), kehuṇasi (RM p.5) etc. [Skt. kaḥ punaḥ Pā. ko pana Ap. kavaṇu] cf. Jn. kavaṇa, koṇa Ass. B. kon Bh. Aw. H *kaun* P. kauṇ G. M. koṇ.

Modern Oṛiyā shows a peculiar change of -ou- to -eu- in an instance, hou : heu (Skt. bhavatu) also to be pronounced as -hau- which has undergone an intermediate stage of -au- which is attested in other branches (*see* under "Contraction of Vowels In Contact", pp. 74, 81).

(vi) -eu-> -au->-ou- in Old and Modern Oṛiyā ; Also -ei-> Modern Or. -ai- :

The mutation of eu> au> ou seems not to be very widespread in old Oṛiyā and is seen to occur in some pronominal forms in a restricted way, viz., kaû (MP, BA, PBG) and koû (MP, PBG) for modern Oṛiyā keû (also in PBG etc), kaû, kou (Skt. kena + hi = keî and keî + the emphatic particle -u- or, u<uta = keû *vide* UVP p.51) ; O. Or. yaû beside yoû 'which' (MP) for modern Oṛiyā yeû, yaû, you (Skt. yena + hi =yeî and yeî + -u- = yeû cf. OAW. jeî, keî, kehû etc. *vide* UVP p.51)

Or. piṭhou beside piṭhau 'rice-pulp for making cakes' (cf. Skt. piṣṭa), hau for heu, hou (Skt. bhavatu) cf. also other compound verbs hauthelā, hauthiba haucu, hauca etc. where -au- stands for -eu- ; dauchanti for deuchanti, dauci for deuchi ; nauci for neuchi from Oṛiyā verbs hebā, debā, nebā respectively ; baṛauchi from bāṛeuchi from the denominative verb of 'bāṛi' i. e., bāṛeibā 'to strike'. Similarly the change of -ei- to -au- in such examples as Or. ḍaîbā 'to jump' from ḍeîbā, ḍaûriā, 'an amulet' from ḍeûriā etc.

(vii) Proto-NIA aWa> O.Or. oa, ua, Mod. Or. ua Ass. ua B -a- etc ; and other similar changes due to labial colouration. (For a detailed treatment *see* under "Contraction of Vowels in Contact", pp. 62, 67-68, 69, 72, 76, 79).

These types of mutation generally represent the changes of the contact vowels and may not be regarded as instances of mutation proper. But they are classed under such head, because the mutation of vowel-quality somehow is always seen to occur here. It has also been noted that while in Bengali and Assamese, the diphthongal sound went out of favour yielding to a new sound, Oṛiyā has always preferred the diphthongal combination of vowels, even after mutation.

Again, the first member of the dipthongs in Oṛiyā is generally seen to be mutated (viz., ai, āi> ei ; au> eu ; eu> au> ou etc.) in contrast to Bengali and Assamese (cf. B āu> *āi> e ; Ass. au> o, o ; ai> a, o etc.). Taking this feature fully noticed, when we come across to such diphthongs in dissyllabic words where metathesis takes place with preference to long final vowel (viz., āu> uā ; āi> iā ; ei>ie ; oe>uo ; oe>ue etc. *see* pp. 64, 75, 79), we can safely infer that the first component of Oṛiyā diphthongs is weakly stressed.

In Oṛiyā, the mutation of vowel caused by the following nasals is not noticeable. The type, a, ā + a group-nasal with consonant become -āɛ- + consonant in Bengali and -ê, ɛ~- + consonant in Assamese. Here, Assamese shows resemblance to North Bengali tendency in pronouncing -ā:- in initial syllables followed by -ā- in the next syllable as -ɛ- (ODBL ff 161, FA ff 247). The mutation takes in the place of compensatory lengthening. In Oṛiyā, usually, there is a loss of length. For examples : Or. baṅkā (vakra) B bāɛkā Ass bɛ~kā ; Or. kaṅkaṛā (karkaṭa) B kāɛkṛā, kɛ~kṛā Ass kêkorā ; Or. pallaṅka (paryaṅka) B pālaṅ Ass pālɛṅ ; but Or. lāñja 'tail' (lañja) Ass lôj (lɛ~z) B laɛj etc.

HARMONIC MUTATION OR VOWEL HARMONY (DISPLACEMENT OF HEIGHT)

Harmonic mutation is a kind of vowel change by which the high or the low quality of a vowel in a following syllable conduces to a similar modification in a preceding one. As a matter of fact, the types of mutation examined in the preceding section involve some amount of harmonic change, the high vowels i, u and the semi-vowel -w- bringing in an anticipatory raising of the previous vowels. This section is restricted to the consideration of the raising of a preceding vowel under the influence of a following high or long vowel.

The principal types of harmonic changes are the following :

(i) -a- + i, y, e, ā> o + i, y, e, ā> u + i, y, e, ā :
A preceding -a- is raised to -u- through an intermediate stage -o- when the high vowels i, y, e, or long vowel -ā- occur in the following syllable.

The change has started in the formative period of Bengali, Assamese and Oṛiyā. Beside the change of -a/i-> u/i in old Bengali and Early Middle Bengali (cf. OB pākhuṛī, pokhuri ŚKK ekhanī : ekhunī, pahaṛa : pāhurī etc.) the similar development is found in cognate words.

For examples : Or. nahuruṇi (*nakha-haraṇikā, to Turner *nakha-kara) Bh nahar(a)ni B narun Ass naranī ; Or. pokhuri (also in insc. of Nṛsiṁhadeva IV, 1396 AD cf. S. 8/20 EOLS) but pokharī (MP, BGi) (pauṣkara pk pokkhara) OMai pokhorā OB pokhiri B pukur Ass pukhurī but OMai pokharā Mai pokhari OAw pokhari Bh pokharā ; Or. dihuṛi 'threshold' (cf. dehali-) also in MBh. Mai. dehari Bh deoṛhī B. deuṛi Ass ḍeurī, dali ; Or. dihuṛi (dīpavarti-) also in MBh. B deuṭi Bh diaṭi Aw ḍiaṭi ; Or. āñjuḷi but compare O. Or. āñjaḷi (MBh U p. 38) āñjoḷi (JC, RB 71) (añjali pk añjali) Jn āṁjulī Mai ã:jura Bh ãjurī B ã:jlā Ass ã:jali but cf. *sts.* jalāñjali (FA p. 132) ; Or. pākhuṛā 'a petal' but pākhaṛā (ChG. MM 77, 79) (skt. pakṣma) cf. OB pākhuṛā ; Or. dāmuṛi 'a young calf' (damya) Ass dāmuri but damarā B dām(a)ṛā.

This type of change i. e., a/i> u/i is very frequent in modern Oṛiyā ; but the intermediate stage -a/i> -o/i- is preserved in Oṛiyā better than elsewhere even from 15th century onward, whereas in Bengali-Assamese, it yields to -u/i-. For Examples :

Old Oṛiyā : beharaṇa (S. 2/5, 6/3 etc. EOLS) behoraṇa (S. 25/5, 41/4 EOLS) for skt. vyavaharaṇa ; behorā (S. 36/3, 52/2, 21/9 EOLS), behārā (S. 37/3 EOLS) beharā (S. 33/2 EOLS) Mod. Or. beherā (skt. vyavāharaka) ; maṇahi (insc. 1263 AD S. 2/7, also in S. 26/3 EOLS and MBh.), maṇāhi (S. 35/5) moṇohi (S. 55/14, also in MP) moṇoi (S. 14/4) maṇohi, muṇohi (insc. of Padmanābha, 1738 AD *vide* OHRJ Vol. III No. 1, 1954 ; also in BG, MP RB 36) muṇahiṁ(MP) Mod. Or. maṇohi 'sacred food' (skt. manas-āpa pā. manāpā ? or. conn. pkt. maṇṇāviya skt. mānya-) ; (pāñca) -ṭoṅkā for ṭaṅkā (insc. of Govindadeva, 16th c. *vide* OHRJ Vol. V No 4) ; Kalubarigeśvara (for Kalavarageśvara) (insc. of Mukundadeva, 1587 AD *vide* Vol. VI No. 1, 1957 ; also in S. 45A/2 EOLS) ; tentulī 'tamarind' (insc. of Govindadeva *vide* OHRJ Vol. V No. 4 ; also in MBh. U. 32) Mod. Or. tintiḷi, tintuḷi cf OB tentali ; pokhuri (insc. 1396 AD *vide* S. 8/20) but pokharī (MP, BGi) 'a pond' ; O. Or. nācaṇī (S. 42/5) beside nācuṇī (33/5, 6, 9 EOLS) (nṛtya-) ; O. Or. ramyoka (MBh Sl. 5) but compare kāmyaka (śara) (MBh. Sl. 8) ; cāpoṛeka (MBh. U. 38) but Mod. Or. cāpuṛā 'a slap' ; rājusī (rājasūya) (MBh. B. 94) baikulya (MBh. Sl. 10) for skt. vaikalya ; kārpuṇya (MBh. M ; also in UBh. 38 etc.) for skt. kārpaṇya ; pindhachanti beside pindhuchanti (MBh. N. 7) koṭoyāḷa beside kaṭuāḷa (MBh. N. 12) ulasāi (MBh. N. 19) beside ulusilā (As. 46) ghaṭukādi (MBh. U. 89) for ghoṭakādi 'horses' ; O. Or. binoyī (NC. 23 for skt. vinayī) binoti (GBh. 13th chānda stanza 24) for Mod. Or. binati 'request' (vijñapti) biṛojā (NC 13 for skt. virajā) piḷohi (ChG. for skt. plīhan) cakorā (Kaḷasā Cautiśā ; for skt. cakrī) ; compare also śiroṛā beside sirūpā (MP) konti (BGi, skt. kuntī) baiṁsori 'a flute' (BNG 10th ch) cf. B bã:śarī (vaṁśi) ; āñjoḷi (JC, BC, i 15, RB 71) beside āñjuḷi (PBG, RB 29) for skt. añjali ; śāṅkoḷi (PG 12, BGP 65, MM 65) mod. Or. śāṅkuḷi 'chains' (śṛṅkhala) O. Or. kaṣaṇi (MM 92) beside kaṣuṇi (MM 51) 'dress'; sātukī, rājusī (sāttvika, rājasika, RM 17) sātukī (BGi for sātyakī) pañcukāyā (NC 11 etc. skt. pañcakāyā) tapusī (tapasvī, PP 20) bāhuka (NC 54 etc. skt.

vāhaka) pahurilo for paharilo 'wore' (NC 69) pañjarī 'cage' (UBH) panjurī (JC), ḍakaṇī, ḍākuṇī (BA) for skt. ḍākinī ; cāṅgaṛā beside cāṅguṛi (MP, JC) 'a basket' -both are found also in Mod. Or. ; nahaï 'is not' (BSAS, ChG) but nuhaï (BSAS, RM 71) nohaï (PP 48, RM 71) (skt. na *asati, na bhūyate) for mod. Or. nuhe.

Modern Oṛiyā : Or. soriṣā (sarṣapa), pohaḷā (pravāla), boita (vahitra), bohū, bou (vadhû), juâî (jāmātā) Ass jõwāi B jāmāi ; āboribā 'to cover' (āvara-), kāmuṛibā 'to bite', kāmuṛā 'biting' but kāmoṛilā ; bohibā (vah-) but buhāibā ; kahibā 'to speak' (kathaya-) but kuhāibā ; sahibā(sah-) but suhāyibā ; naîbā 'to bend' (nam-) but nuāîbā 'to cause to bend' ; cakuā (cakravāka-) but cakoī (cakravākī) ; mahurī 'a kind of musical instrument) cf OB mauharī (madhukārikā); khuṛutā, jeṛutā (kṣudratāta, jyeṣṭhatāta) udhuribā 'to pay off' (uddhāra), uturibā 'to descend' (uttarati), uburibā 'to stand' (cf. ūrddhva-), upuri 'an extra' (upari), saṅgātuṇī 'a female friend', maṅguḷibā beside maṅgaḷibā 'to do good', saturi (saptati), magaśira (mārgaśira), jaguāḷi 'an watchman' (jāgratapāla), pâñcoṭi, pāñcuṭā for *pāñcaṭi 'five pieces' ; dioṭi for *diaṭi 'two pieces' ; Or. āṭhoṭi but āṭhuṭā (aṣṭa) ; ketoṭi beside ketuṭā, keteṭā 'few' from kete, keta cf. B kata-k (kiyat pkt. kottia) ; cāṅgaṛā but cāṅguṛi 'a basket' ; laṅgaḷā but laṅguḷī 'naked' (nagna) ; āñjuḷā (añjali) ; poṭaḷā but puṭuḷā, puṭuḷi ; laṅguṭī (*laṅga-paṭṭa) cf. B leṅaṭ ; bagalā but bagulā (vaka, baka) ; kākuṛi (karkaṭika) cf. B kā:kuṛ.

In many cases the change -ā-> -o,u- is worth noticing, for examples, Or. khāibā (khād) but khuāibā 'to feed', khoibāku 'for feeding' ; Or. ugāḷibā, ogāḷa 'to obstruct', also āguḷibā 'to obstruct', āguḷa (argala pkt. aggala) cp. O. Or. ugāḷile (MBh K p. 28) beside ogāḷile (MBh K p. 26) ; Or. maśāri, masaharī but maśuri 'a bed-curtain' (maśakahārikā), bhādua, bhodua (bhādrapada), ujāṛibā beside ujuṛibā (*ujjāṭayati, CDIA p. 76), pāibā but caus. verb puāibā, dhāibā but caus. dhuāîbā ; Or. kaṭāri, kaṭuri (kaṭṭaraka), [*see* also under 'Elevation of the Interior Vowels'].

(ii) -a- + i, u, a, ā> e + i, u, a, ā> ĭ + i, u, a, ā :

A medial -a- is changed to -e- when followed by the high vowels i, u or long -ā- in the next syllable. This type of change is also found in words more than two syllables in Eastern Assamese frequently (FA ff 263, 264, 256), viz., Ass. mekhelā <Skt. mekhalā, nāgerī <Skt. nāgarī etc. In modern Oṛiyā the mutated vowel -e- is often seen to be raised to -i- ; compare Mod. Or. kacheri, kachiri (*kṛtya-gṛha), cākiri 'service', cf. O. Or. cākeri (Bh. ii. 22) [*see* also p. 38 for the change -e->-i-].

Old Oṛiyā Examples : caturudesi (Skt. caturdaśī, 41.5 EOLS), ethaku but ethiki (49.6 EOLS), Kalubarigeśvara (inscr. 1587 A. D., OHRJ Vol. VI, No. i) ; beherā (also mod. Or.) for beharā (40.6, 33.2, EOLS) ; behoreṇe (41.4) beside beharaṇa (2.5, EOLS) [Skt. vyavahāraka, vyavaharaṇa, *see supra*] ; karei (37.4 acc. to M.M. Chakravarty) for karai ; pāḷeka (5.20 etc.) for Skt. pālaka ; pāteka

(55.14 EOLS) for Skt. pātaka ; Kaṭoka beside Kaṭaka (13.6, EOLS and inscr. 1278 A. D. of Bhānudeva) ; kaḷisi (kalasī, 2.10). O. Or. kāberī (MBh. U99) for Skt. kabarī cf. Mai. kāberi ; kāchoṭi beside kāchaṭi (MBh. B117, 82) cf. Mod. Or. kācha, Ass kāchuṭi (Skt. kakṣaṭikā) ; barehā (MBh. U62) for Skt. varāha cf. mod. Or. bārhā, also bārihā (quoted by Maltby) ; gāreṛi (MBh. K44) beside garaṛi, gāraṛi (Sv p.15 K9) for mod. Or. gāriṛi, gāraṛi 'magic, enchantment' ; ḍāṅkeṇī (CM ii, p.59) for mod. Or. dāṅkuṇi, ḍāāṇī (ḍākinī) ; śākāmberi (GBG) for Skt. śākāmbharī ; nohenti (CM iv, p.33), nohanti (BrN p.12) for mod. Or. nuhanti ; jhālerī (jhallarī, GBG), for mod. Or. jhālara ; sāreṇī (BC p.12) beside sāraṇī (BC p.86) but sāriṇī (KBS p.61) ; gāyeṇī (SSN p.61) beside gāyaṇi (PP p.94) ; gareṣṭa (gariṣṭha, BNG 4th chānda) ; Gorekha (Gorakṣa PG p.2) ; rāgeṇī (rāgiṇī, GBG) ; kāreṇī (kāraṇī, ChG) ; yādeba (yādava, BGi) ; behāra (vihāra, GBG) ; bāśeli (vāgīśvarī, BA) cf. B. bāśali ; sāmigrī (sāmagrī, MP) ; ahilyā, ahilā (ahalyā, GBG) etc.

Modern Oṛiyā : kaceri, kaciri (*kṛtya-gṛha) cf. B kāchāri ; pācerī, pācirī (prācīra) ; cākiri but cākeri (Bh. ii, p.2) ; kārigiri for kārigari ; āñjoḷi beside āñjuḷā (añjali); chutikiā for chutakiā ; gāraṛi, gāriṛi ; bhitara, bhitiri ; pokharī, pokhirī, pokhurī ; bigaṛibā, bigiṛibā ; bhoḷiki cf. O. Or. bhoḷaki (BC p.117) ; bāṛheni beside bāṛhani ; peṅgā (paṅgu), śābaḷa, sābeḷi ; terecha, terachā, terachi (tiraści pkt. tiricchi) ; chenā (chagaṇa) cf. B. chānā ; ḍeṇā 'wing' for ḍāṇā ; pheṇā for phaṇā 'a hood of a snake' ; phāṛibā, pheṛibā 'to split' (sphāṭ-); tintuḷi, tintiḷi cf. O. Or. tentulī (50.3, EOLS) for Skt. tinitiḍikā ; bājeṇī 'a sounding ornament' but bājiṇī (KBS p.18) for bājaṇī

(iii) -o- + i, e, ā> -u- + i, e, ā ; also -u- + i> -o- + -i- :

The following high vowel i, u or e, ā raises a preceding -o- to -u-. But in conjunction of two high vowels, namely, u + i sometimes dissimilation takes place ; compare curi : cori ; guṭi : goṭi, kāmuṛibā : kāmoṛile, O. Or. kointā : kuintā for Skt. Kuntī (MBh K39, U59, D31 PG p.30) ; kotohaḷe (CM ii, p.96) for kutūhale ; kunta : konta (MBh B86, U67) ; koilā (kulyā, *kuilā, MP) etc.

The similar development of -o + i-> -u + i- takes place also in Assamese, viz., kuli <Skt. kokila, puṭhi cf. B. pûṭi <Skt. proṣṭhi, gui <Skt. godhikā etc. (*see* FA ff 258). In Bengali too, the same tendency happens (viz., śo 'to lie' but śui 'I lie' where -o + i, u-> -u + i, u-; also śun 'to hear' but śone 'hears' etc. where- -u + a, e, ɔ, o> -o + a, e, ɔ, o. In Oṛiyā verbs the similar tendency is best perceptible. For examples, Or. śo 'to lie', śoibā, śoi, śoibi etc. but śuāibā (causative), śua (imperative, 2p. sg.) ; thoibā, thoili, thoi etc. but thua ; joibā but juāibā ; dhoibā but dhua ; hoibā, hoi but huantu, hua etc. upāṛibā, also opāṛibā (utpāṭaya-) ; poṭaḷā but puṭuḷā ; goṭi, guṭi ; ruṣā for Skt. roṣa ; kothaḷi, kuthaḷi (kakṣa-, sthavi ?)

The elevation of -o- to -u- is an old practice which prevailed during 15th-16th century, A. D. if not earlier ; for instances, O. Or. loṇa (12.7) beside

nuṇa (29.4, EOLS) ; dokāni (25A.2, 33.13) beside dukāni (33.8) ; doo!a (54.9) beside dou!a (6.6) ; poo (13.8) beside pou (29.2) for mod. Or. pua ; -ṭho (34.3) for mod. Or. -ṭhu etc.

(iv) -e- + i, u, ā, a> -i- + i, u etc. But sometimes -i- +i , u, ā, a> -e- + i, u, ā, a :

The high-mid -o- is raised to the high vowel -i- when followed by the high vowels, i, u or -a, ā-. This feature is also common to the Western dialects of modern Oṛiyā. Some instances are also found where -i- + i, u, ā> -o- + i,u,ā. Both the changes seem to be old but the former is traceable even in the 13th century.

In Bengali, the same feature of raising the vowel is found (cf. deśī> diśī where -e + i-> -i + i-). But -o- + a, o, ɔ, o> -ag- + a, o, ɔ, o is also met with (cf. √dekh 'to see', dagkhā). In case of -i- + ā, e, ɔ, o, Bengali shows -e- + ā, e, o, ɔ where -i-> -o- (cf. √gil 'to swallow', gelā etc.). In Assamese, the low-mid vowel -g- becomes a high-mid vowel -e- when followed by -i- (cf. eti 'one' gta *vide* FA ff 260).

Examples showing the above tendencies in Oṛiyā are shown below :

(a) O. Or. tontuḷi (50.3, EOLS) for mod. Or. tintuḷi cf. OB tontuli ; -i-, -ī- beside -e- 'this' (1271 A. D. inscr. *vide* OHRJ Vol. I No. iii). Also i, ī (10.7, 3.7, 11, 6.5, 7, 8) beside -e- (Serial Nos. 1, 3, 5 etc.) ; Narindra (14.5) for Skt. Narendra ; deu (40 5, 2.7) but diaṁ (27.6) for mod. Or. diā (Skt. deva) ; leā (53.11) for mod Or. liā (Skt. lājāḥ). In modern Oṛiyā, kaceri/kaciri 'a court-house', pācerī (also in PBG) beside pācirī 'wall', diha for Skt. deha, dehuṛi/dihuṛi for Skt. dehalī, yemiti/yimiti, emiti, ehimati beside imiti, ehilāgai beside ilāgi, kemiti/kimiti, gerasta/girasta, jāḷeṇi/jāḷiṇi, debā 'to give' but diāibā, dia etc., nebā 'to take' but nia, kiāri (kedārikā), śiuḷi (śephālikā) etc.

(b) O. Or. delā (50.3) beside dilā (9.13, 10.10 etc.) ; delī (26.5, 14.7) but dili (27.9, EOLS) etc. nirekṣaṇa (MBh GS) for Skt. nirīkṣaṇa, also compare nirekhi, nirekhai (K. Ko.) for mod. Or. nirikhibā ; heṅguḷā (MBh Sv19, N13, Ai3 etc.) for hiṅgulā ; *sts.* bhebaḷā (MBh B139, Skt. vihvala) etc.

In modern Oṛiyā, heṅgu (hiṅgu), delā for dilā, hauthelā, kahithelu, kahuthelā, karuthebi, deïthelu etc. for -thilu, thilā, thibi etc. in compound verbs. This tendency of lowering the vowel -e- to -i- is a frequent practice in the dialects of Balasore.

(v) -u-, -o- + i, u, e, ā, a> -a- + i, u, e, ā, a :

The high vowel -u- or high-mid -o- when followed by i, u, etc. is lowered to -a-. The feature, though frequent in modern Oṛiyā especially in initial syllable, goes back to as far as 13th century. But possibly, the feature is a

Bengali-Oriyā development and started with the change in medial positions, for examples, Or. gahama (godhūmāḥ pkt. gohūma) B. gam <*gaham, Ass. gom(dhan) 'maize' but Bi. gahum, gohum, gohû, gehû Mai. gohūma ; Or. phārasā (pāruṣaka Pā. phārusako) B. phalsā from phalasā ; O. Or. anturī mod Or. ãtara (*antaḥ-kuṭa, *anta-puṭikā) OB antaüri Mid. B ã:tari but B ã:tur.

Examples of -u, o-> -a- in Oriyā : Or. pahañcibā beside pahuñcibā (pkt. pahuccai) cf. Mai. pahû:ca Bh. pahûc, cahûp B. paûchā Aw. pahûc ; Or. pararā (cf. paṭola pkt. paḍola) cf. Jn. paḍavala 'a kind of edible vegetable' ; Or. tiana beside tiuṇa 'curry' (tomanam 'sauce' cf. stimyati 'becomes wet' pkt. tīmaṇa) cf. H tīwan N tiun ; Or. tāmaḷi 'seller of betel leaves' (tāmbūlika) cf. Mai. tamōlī Aw. tābolī Bh. tamolī Ass. tāmūli ; Or samajha, samajhibā (saṁbudhya- pkt. saṁbujjhai) B samjāna Bh. samujhal cf.. Mar. samajhṇê Guj. samajhvû etc. Or. apaṛibā for upāṛibā 'to uproot' (utpāṭaya-), taṛibā for toṛibā (troṭaya-), ajāṛibā beside ujāṛibā 'to lay waste, to uproot' (*ujjāṭaya-, cf. Skt. jaṭā pkt. ujjāḍei *vide* ND p.64, CDIA p.76), ḍama for ḍoma (ḍomba), gaüṛa (gopa-la), kaṭuāḷa (koṭṭa-pāla), pāṇḍara (pāṇḍūra), bahaḷa (bahula), tame for tume, tome 'you' (*tuṣme, *tuṣmābhiḥ), tama for tuma 'your' (*tuṣma-), tate for tote 'to you' (tava, -anta), mate for mote (mama-), samanātha for Skt. somanātha, sābāra for Skt. somavāra, kã'ḷa, kaãḷa (komala), taṇṭi, taṭi beside toṭi 'throat' (troṭi), thanṭa 'beak' (troṭi + tuṇḍa ?) cf. B. ṭhôṭ ; Or. dhaṇḍā (dundhubha) cf. B ḍhôṛā 'a kind of snake', janha for O. Or. junha (jyotsnā), mahuṛa (mukuṭa), maṇḍa (mūrdhan) cf. B. muṇḍa ; Or. alaṇā (alavaṇaka) cf. aluṇi (GBG) etc.

Old Oriyā Examples : sajya [acc. to B. Miśra but sujya to A. B. Mahanty and sujra (surya) to K. B. Tripathi *vide* EOLS, 1.33, 13th c. A. D. inscr.] ; samabāra (50.2) beside somabāra (52.2 etc.) ; garubāra (insc. of 1470 A. D. *vide* OHRJ Vol. II p. 61) beside gurubāra (inscr. of 1587 A. D. *vide* OHRJ Vol. II Nos. 3-4) ; Makunda (16th c. insc. *vide* Srijanga Stone Pillar insc. OHRJ Vol. VI No. 4 p. 249) beside Mukunda (Appendix S. No. 11, 12, EOLS), also Mukuṁdda (16th c. insc. *vide* OHRJ Vol. VI No. 1) ; tamūkuṁ (54A.2, EOLS) for tamaku< tumaku ; ghaṭukādi (Skt. ghoṭakādi, MBh U p89) [*See* also p. 38 for the change of -o, u-> -a-].

(vi) -e- + a, ā, u> -a- + -ā- etc. :

The lowering and change of quality taking place simultaneously is a notable feature in mod. Or. In the same phonetic conditions, Bengali shows lowering of -e- to -aẹ- but without mutation of vowel quality. For Examples in Oriyā : nabā, nauci etc. from nebā 'to take' ; dabā, dabu, dauci etc. <debā 'to give' ; habā, habu, habaṇi etc. <hebā 'to be'. The earlier occurrences are : haba (42.7, EOES acc. to M. M. C) ; Jamasara (Yameśvara, 26.4) ; dabu for debu, dabā for debā (MP). [*See* also p. 38 for the changes -e, i-> -a-].

QUANTITATIVE CHANGE OF VOWEL

The short anterior is highly characteristic of Oṛiyā. In Assamese the short anterior is found only when it is followed by -ā-. For examples, pāt/patā, cāki/cakā, (FA ff 267) ; whereas Oṛiyā seems to have carried it out more uniformly than Assamese (cf. Or. cakā, patā, gadhā etc.). Bengali in this respect stands apart (cf. B. cākā, pātā, gādhā etc.). But Oṛiyā shows affinity with Assamese with respect to causative and denominative verbs (*see* also pp. 21, 217) cp. nācibā : nacāibā etc.

Examples : Or. aṭā 'flour' Ass. aṭā [ata, ɡta] B āṭā ; Or. aṭhā 'gum' Ass [atha, ɡtha] B āṭā ; Or. adā 'ginger' Ass [ada, ɡda] B ādā ; Or. adhā 'half' Ass (adha, ɡdha) B ādhā ; Or. camaṛā Ass [sʊmɔra] B cāmṛā ; Or. chatā 'an umbrella' Ass [sʊta] B chātā ; Or. tarā 'star' Ass [tʊra] B tārā etc. Or. bichaṇā 'bed' (vidchādana) but Or. bichāibā B bichānā cf Mai ocho:na (avacchādana) Bh bichawanā Ass bichanā ; Or. bihana (*bīja-dhānya) 'seed' B dial. beyān Ass biyanī sābaṭā 'a kind of wild plant' ; Or. kuāra O. Or. kumara for *kuW~ara (kumāra) OAw kuāru Mid Aw kûara Aw kûār OMai kumara Mai kumhāra ? Bh kûwā:r Ass kõwar B. koṅār Mid B kuṅār, koṅār, kõyār ; Or. karata (karapatra) pk karapatta) B karāt Ass karat ; Or. ākhaṛā (akṣavāṭa) Bh akhaṛā, ākhṛā Ass ākharā Jn ākhāḍā B ākhṛā ;

Of course, ther are some cases where lengthening of the vowel has taken place owing to the shift of accent (*see* under stress system of Oṛiyā, also pp. 17, 124, 209).

Examples : O. Or. yamaḷā (MBh) but Mod Or. jāā:ḷā (yamalau m. du. yāmalam 'pair' pk. jamala) Sarvānanda : jumāḷa ; Or. ghoṣāṛibā (cf. gharṣati, *ghṛsati pk ghaṁsaï, ghasaï) Jn ghasaṇī 'friction' Mai ghasaba, ghasani Bh. ghas, ghās Ass ghāh B ghasā ; Or. kāhāṇī (kathānakam pk kahāṇaa) OAw kahaṇî Jn kāhāṇī Bh kahanī Mai kahinī, kahinī B kāhinī ; Or. kanāuja (kanyakubjam pk kannaüjja) OAw kanaüja Mai kanaüjjā B kanoj, kanauj. Or. panāi (upānah pk uvāṇahā, pāṇahā) Jn vāhāṇā Bh panahī Mai panahī Mid B pānai B pānā (dial.) Ass pānai.

QUALITATIVE CHANGES AND ELEVATION OF THE INTERIOR VOWELS

Change of quality from front to back or *vice versa* through the influence of a following vowel is not rare in Oṛiyā. The changes like a> e> i or, e> a are such qualitative changes and have been discussed already.

(i) The Change -a-> -i- :

In few words -a- occurs as -i-. In Bengali words like -āṅinā- (aṅgana) beside āṅ(g)an, kāchim (kaśyapa kacchapa kacchiwa, *kacchiW~a) chātim Mid B chātiana, chāñiyaṇa (saptaparṇa, chatraparṇa) OB pokhira (puṣkara) phaṛiṅ. (pataṅga MIA phaḍiṅga) etc. the reason of change is not clear (ODBL p.335).

In Oṛiyā, these types of changes are found when the final vowel is -i- and hence, they are really the cases of Vowel Harmony which are so often with the words flanked with the high vowel -i- in final position. In Bengali, Assamese and Oṛiyā the high vowels -i, u- may precede or follow the affected vowel.

Examples : Or. ḍimiri (udumbara- cl. skt. uḍumbara pk umbara) Mai ḍumari Bh ḍūmari B ḍumur Ass ḍimaru (<ḍimura ?) ; Or. pāliṅki beside palaṅka, pālakī 'bed, litter' (paryaṅka, palyaṅka Pā. Pk pallaṅka) Bh palaṅ, pāl(a)kī Ass pālaṅ, pāleṅ, pālkī Mai palaṅa, palaṅā, pālakī Mid Mai palaṅa (Vid.) Aw palɔkā, palkā 'bed' ; B pālaṅ, pālki ; Or. nikiḷibā 'to drive away' beside nikāḷibā (*niṣ-kālaya-,niṣkālana Pk nikkālei Ap nikkaliu <niṣkalya) OAw nikalata 3. pl pr. Aw nikar- 'to come out' Bh nikālal Ass nikāl OB nakhali (C. 20) 'uprooting' B nikāl Jn nikhala (niṣkala) 'pure' ; Or. khiṛiki 'side door' (Skt. lex. khaṭakkikā Deś. khaḍakkī) B khiṛki. Ass khiriki cf Punj. khiṛak. In Nep. Guj. Mar. Hind. the interior vowel is lost. Or. simiḷi beside simuḷi 'cotton tree' (śimbala- pk simbali, sambali cf śālmali-) B śimul Ass simalu (<*śimula ?), Nep. H. Punj. have retained the vowel -a-. Or. diāsili (dīpaśalākā cf. Skt. śalākā pk salāyā) OAw salāi Mai diāsalāi cf. OMar *sts.* sīlikā 'small stick' Ass diyācalāi, decalāi B. diyāśalāi, deślāi ; Also Or. yetiki, etiki (iyattaka-), kemiti (kemanta), pokhiri, pokhuri (puṣkara) cf. B. pukur Ass. pukhuri ; bhiṇoi (bhaginīpati) cf. Ass. bhinīhi B. boṇāi ; sîndhi (saṁdhi) cf. B. sidh, Ass. sindhi ; phiṭikari (sphaṭi-kāri) cf. B. Ass. phiṭkiri etc.

(ii) The Change -a-> -u- :

The elevation of -a- to -i- or, -u- due to the following high vowel seems to be a general practice of Bengali, Assamese and Oṛiyā (*see supra*). That the change of -a- to -u- is specially frequent in Bengali and Oṛiyā has already been noticed by Grierson (ZDMG Vol. 49 p. 403, also referred in 'A Phonology of Panjabi' by Jain ff 28). Besides, Dr. Kakati has also mentioned the change, -a-> -u-in Assamese, though the other change a>i has escaped his notice (FA ff. 254, 259).

Examples : Or. samundhi O. Or sumundhī (PP 130) 'a son's or daughter's father-in-law' (sambandhaḥ, saṁbandhī pk saṁbandha, -i) Mai samadhi B dial. sumundi, samandhī ŚKK samundha *sts.*; Or. śikuḷī (śṛṅkhala pk saṅkhalā, siṅ-khalā) also Or. śāṅkoḷi, śāṅkuḷi OB sikala Sarvānanda : siṅkaḷi B śikal OMai siṅkalī, siṅkara Jn sāṁkhala Bh sî:kar Ass. śikali ; Or. leṅguṭi (*liṅgapaṭṭa) Bh lãgoṭ Aw lãgoṭ B leṅaṭ, leṅṭi Ass leṅṭi ; Or. bhaũrī fem. of bhaũra (bhramara pk bhamara) OMar bhavara Mid Aw bhavāra (Jāyasī) Mai bhaurī, bhamharā Bh bhawãrā, bhãwrā Ass bhaîrā, bhomorā B bhomrā, *bhaõrā ; Or. mukuḷā (mukta, *mukna, *mukva) Jn mokalā Ass mukali 'free' Mid B mukala ; Or. puruṇā cf. O. Or. pṛṇā(inscr.) (purāṇa pk purāṇa) Ass puraṇi Bh purān B purāṇa, puroṇo ; Or. pimpuṛi (pipīlikā) Mai piparī, pupari B pîpṛā, pîpiṛā Sarvānanda : pimpaḍā Ass piprā ; Or. ḍhāṅkuṇī <ḍhaṅkibā (pk ḍhakkiṇī Deś. ḍhaṅkaṇī) also O. Or. ḍhākuṇi (GBG) Mai ḍhākana Bh ḍhaknī Ass ḍhākan B

Ass ḍhākṇi ; Or. cāḷuṇi 'sieve' (cālanī) B cāluni Ass cālani ; Or. ghāghuri (ghargarī pk ghaggara) Ass ghāghar B ghāgrā ; O. Or. kuhurī 'fog' Mod. Or. kuhuṛi (cf. kuhī 'fog') Ass kuwali, kŭwali ; Or. kuṭuṇi 'bawd' (kuṭṭanī) B kuṭani, kuṭni Ass kuṭanī Bh kuṭnī ; Or. kuthuḷī 'bag' (pk koṭṭha 'belly' kothala 'granary, bag') OMar. kothaḷeyā ; Or. kaḷihuṛi (kalahakārikā) OAw kalihāṛi cf O. Or. kaḷihā (MBh U44) ; Or. kāpaṛa but kāpuṛiā (karpaṭika) ; Or. nahuruṇi (< *naharaṇī <*nakhaharaṇikā, *nakha-kara), cf. B narun Ass. naraṇī ; Or. pituḷi (puttalikā) cf B. putul Ass. putalā ; Or. pokhurī (puṣkara) cf. B. pukur Ass. pukhurī etc.

From the above it is clear that this type of Vowel Harmony is always associated with final -i-. Hence, in the words having feminine suffix with -ī-, the penult is changed from -a- to -u-. In Old Oṛiyā documents of 15th c. A. D., we get some cases where penultimate -a- by the side of mutated -u- was found. For examples, O. Or. nācuṇī (18.10-11, 33.5, 6, 9 EOLS) beside nācaṇī (42.5 EOLS) ; śabaraṇī (MBh As p41), oṛaṇī (B21), gosāmaṇī (U15), gharaṇī (U75), kajiākhoraṇī (U12) etc. but the feminine forms with -uṇī were not also rare, viz. piśācuṇī (MBh U13), keuṭuṇī (U60), saṅgātuṇī (U66), daituṇī (U72) etc. And at present this -uṇī suffix for feminine is seen to be generalised, viz., bāghuṇī, mituṇī (cf. mitaṇī in TB. UBh), nātuṇī, ḍaṅkuṇī, andhuṇī, rāndhuṇī etc. in modern Oṛiyā.

In the verbs too, the interior vowel, -a- is changed to -u-, for instances, Or. upujibā (cf. utpadyate pkt. uppajjai) cf. Jn. upaje, B upaje OAw upajati (pl.), Aw. upɔjai Mai. upajā OMai upajala (past), Bh upajal Ass opaja etc. Similarly, Or. sudhuribā 'to mend' (cf. śuddha), katuribā (cf. karttarī), uturibā (cf. uttarati), uchuḷibā (cf. ucchalati), udhuribā (cf. uddhāra) etc. In Causative and Denominative verbs, even the change -ā> u- is noticeable, for examples, Or. rahibā/ruhāibā, pāibā/puāibā, sahibā/suhāibā, dhāībā/dhuāībā, khāibā/khuāibā etc., paturibā (<patara), gajuribā (<gajā), pahuṛibā (<pahaṛa) etc.

(iii) The Change -i->-u- and vice versa :

This type of change i.e. -i>u- or -u>i-is a peculiar phonetic feature in Oṛiyā and has caused to develop a double set of forms, the historical one being sometimes supplemented by the newly developed form. The change -u> i- may be explained, though not universally, as due to the influence of -i- in the following or preceding syllable. But the cause of the change -i> u- still remains obscure. The changes are treated below in two heads :

(a) -i->-u- : Or. tinutuḷi, tintiḷi (tintiḍikā), pimpuṛi, pumpuṛi (pipīlikā), suṅghibā (cf. śiṅghati), bunda (vindu), kaupunī (kaupīna, also in MBh N13), O. Or. duhuṛi (JC) for mod. Or. dihuṛi (dīpavartikā), O. Or. puruhuta (MBh U18), mod. Or. prohita (purohita), bhauṇī cf. O. Or. bhaiṇī (JC) (bhaginī), ḍaṅkuṇī cf. O. Or. ḍākuṇī, ḍakaṇī (BA) (ḍākinī), paṛośī, parisī (prativeśika) etc.

(b) -u- > -i- : Or. ḍumuri, ḍimiri (udumbara), pokhuri, pokhiri (puṣkara), śimiḷi, śimuḷi (śimbala), piusī, piisī (pitur svasā, pitṛsvasā), śiśumāra (śuṁśumāra), śiṣumunā (suṣumnā), pituḷi (puttalikā), dihiṅka, duhiṅka 'of the two' (dvi-), cimiṇi, cimuṇi ; tāmiḷī, tāmuḷī (tāmbūlika), bāchuri (vatsa-rūpa), nipura (nūpura) etc.

VOWEL ASSIMILATION

The assimilation of vowels is also a kind of harmonic change. Vowels of different qualities are assimilated to the sounds of neighbouring vowels for ease of pronunciation. Unstressed vowels are generally assimilated. Vowel assimilation is noticeable in MIA also, e. g., miriya (marica) avariṁ (upari) ucchu(ikṣu) (cf. Pischel: GK ff 177).

EXAMPLES IN OṚIYĀ :

(a) -a- usually when preceded by -a- : O. Or. haladi (MBh As. 54) Mod. Or. haḷadi 'turmeric' (haridrā pk hariddā, haliddā, -i, haladdā) Mai haradi Ass hāladhi B halud Bh Aw hardī ; Or. baṛaśī 'hook' (baḍiśaḥ pk baḍisa, balisa) B bā'ṛśī Ass barahi ; Or. parakha (parīkṣā pk parikkhā) B parakh, also H. P. L. N. parakh. Or. aṅgaṭhā 'fire place' ? (agniṣṭhikā Pā aggiṭṭho, nasalisation due to the influence of aṅgāra-) Jn āgiṭhā, ā:giṭhā Bi āgeṭhā cf G āgiṭhā P āgiṭhā N āgeṭhi ; Or. khaṇatā, khaṇati (khanitram pk khaṇitta) Bh khantā 'spade' B khan(a)tā, khunti Mai khantī, Ass khantī ; O. Or. (inscr.) prataṣṭhā (pratiṣṭhā). Compare also O. Or. kāḷandi (kūḷa) for kālindī (MBh. M7, 9) gosāmaṇī (gosvāminī). The examples above show that the change of i > a when preceded by -a-, is a neo-Māgadhan feature and thus inherited by all the eastern languages.

(b) -ā- usually when preceded by -ā- : Or. ḍāhāṇa (dakṣiṇa pk dāhiṇa) OB dāhina B ḍāhin, ḍān Ass ḍāhin Bh dāhin Mai dahīna dahinā ; O. Or. ḍāāṇī beside daṅkuṇī (ḍākinī) Ass ḍāini B ḍāin, ḍān Mai ḍāini Bh ḍāini ; Or. bāhāra (bahi- cf vāhya- Pā bāhiro pk bāhiraa) Jn bāheri Bh bāhar, baharî: Mai bāhara Ass bāir B bāir, bār, ber ; Or. bāhāṛā (bibhītaka, bibhīdaka) B baheṛā, bayṛā ; O. Or. sthānā-pati (sthāna-pati, EOLS). O. Or. *stss.* bāhāna (vāhana, AKG, BG), sāhāsa (sāhasa, RBh, BGi), Śākāmbhārī (TB) for Śākambharī (SS), gāyātrī (gāyatrī BGi), sāhāsī (sāhasī, PP 18), pāṣāṇḍa (pāṣaṇḍa, GBG). The change -āi- > -āā- is peculiar only to Oṛiyā.

(c) -i- usually when preceded by -i- : Or. tintiḷi beside tintuḷi (tintilikam, tintiḍīkā) OB tentali B têtul Bh têtuli, têtul Mai tetarí Ass têteli ; Or. ḍimiri (udumbara cl. Skt. uḍumbara) Pā. udumbaro pk umbara) Ass ḍimaru Mai ḍummari B ḍumur Bh ḍūmari ; also Or. kārigiri for karigari, Or. simiḷi beside simuḷi (śimbala-) B śimul ; O. Or. nigirihibi for nigrahibi 'I shall punish' (inscr. 1464 A. D. EOLS)

(d) -u- usually when preceded by -u- : O. Or. kaüpuṇi for kaupīna (MBh. N 13), puruhūta (MBh. U 18) beside prohita for purohita. O. Or. caturudesi (caturdaśī) (15th c. inscr.). Old & Mod. Or. puruṇā (purāṇaka). Or. uturi (uttarīya) (also in inscr.), tuḷusā (tulasī, also in GBG).

(e) -e- usually when preceded by -e- ; Or. ceherā 'figure' (Persian cihr) cf B cehārā ; Or. beherā 'a caste', 'planquain bearers' cf B behārā, beyārā ; O. Or. ketekī (ketakī, BrN 79), Mod. Or. terecha beside terachā, terachi (tiraści loc. pkt. tiracchi), Or. mehentara, mehantara 'sweeper' (Persian mehtar 'groom') cf. B. methar.

(f) -o- usually when preceded by -o- : O. Or. ohora 'tax' (Skt. avahāra Pā. avahāro cf. ND 63). O. Or. (inscr.) poro (paura) for pora ; O. Or. maṇḍopa (NC 48) beside moṇḍapa, moṇḍoa, moṇḍopa (MP) (for maṇḍapa) ; O. Or. sohoṛa (RM p. 14) (śobhana- pk. sohaṇa> *sohaṛā) ; O. Or. dorohā, dorehā (droha, EOLS) ; tohara, tohora (EOLS) [tava-].

The cases of regressive assimilation are also not rare. Here the preceding vowel is itself converted by the vowel of the succeeding syllable. For examples : O. Or. (inscrs.) paryanteke for paryantake, pāhānti (also in mod. Or.) (prabhāntī) Māhāpātra (Mahāpātra), Māhārājā (Mahārājā), kore-patra (for kraya-, *krae), māhāprabhu (mahā-MP) śākhā (sakhā, BGi etc.), cāṇḍāḷa (caṇḍāla, GBG), bārāha (varāha BP), deho (dahe BGi), bhoḷaki (B C 117) but compare mod. Or, bheḷiki 'majic' (>?), mod. Or. porohita (purohhita) etc.

CHAPTER X

INTRUSIVE VOWELS

(A) ANAPTYXIS OR VIPRAKARṢA

This is a phenomenon by which a vowel is often inserted between a combination of sounds which are difficult to pronounce. The phenomenon is found in all periods of Indo-Aryan. In the first and second MIA, *viprakarṣa* forms are found to be on increase (cf. Geiger ff 29 Pishcel ff 131). A few of them have been inherited by Oṛiyā also, e. g., paduma (padma) 'the lotus', soriṣa 'mustard' (sarṣapa, sarisava) ārasi (ādarśikā, āarasiā). In Oṛiyā, (as in MIA), *svarabhakti* takes place usually when one of the conjunct consonants is y, r, l or a nasal. Examples of *Svarabhakti* in Oṛiyā :

(i) with-a-: Or. sanamukha (sammukha), sanamāna (sammāna), sanamati (sammati), janama (janma), parabāsa (pravāsa), parasana (prasanna), garajana (garjana), baraṣā (varṣā), khudara (kṣudra), chatara (satra) ; Or. daramā 'pay, fee' (*sts.* < dramya) etc. O. Or. bahani (vahni), kaṣana (kṛṣṇa) (MBh.), O. Or. (insc) samparadā (sampradāya), sukara (sukra), barasa (varṣa), dharama (dharma), sukaḷa (śukla), rakata (rakta), paraba (parva), garabha (garbha) etc.

(ii) with -i- : tirisa '30' (triṁśat), śirābaṇa (śrāvaṇa) 'name of a month', kileśa (kleśa), stiri (also in MBh.) (strī), nirimaḷa (nirmala), (MBh Ai. 32), bhāriyā (bhāryā), piḷehi 'spleen' (plīhā), O. Or. (insc.) tirisa '30', nigirihibi for nigrahibi (nigraha), nirimāila (nirmālya) etc.

(iii) with -u- : putura (putra), uṣuma (uṣma), pauma, paduā (padma), sukhuma (sūkṣma), also in Mid.B ; sutura (sūtra), pāruśa (MBh.B29) (pārśva), suṣumunā (suṣumnā) [MBh], sumaribā (smar-), bhūru (MBh B52) (bhrū), mudugara (also in MBh B90) [mudgara-], kuruma (kūrma) [MBh U62], murukha (mūrkha, MBh Ai. 25), O Or. (insc.) kuruma (kūrma), caturudesi (caturdaśī), mukutā (mukta) etc.

(iv) with -e- : O- Or. dorehā [droha] (inscr. *vide* OLS, also in MBh. Sv. 3), seneha [sneha] (MBh. U7), Or ceherā 'figure' (Persian cihr), mehentara 'sweeper' (Persian mehtar).

(v) with -o- : kaṣoṭa (kaṣṭa probably through* kaṣaṭa), O. Or. Insc. dorohā (droha) [EOLS].

The anaptyxis is found also in the foreign loan words, viz, Or. gilāsa 'glass', ṭebul 'teble',„ekar 'acre', phikar cf B phikir 'device' (Arabic phiqra), nagada 'cash' (Ar. naqd),·bakhat 'time' (Ar. waqt), ṭikasa 'tax', sileṭa 'slate' etc.

(B) PROTHESIS OF VOWELS

"Prothetic vowel is vowel phoneme prefixed to a word or utterance for ease of pronunciation, and by definition, it bears no meaning of its own, i. e., it does not have the status of a morpheme" (FA pp 146 footnote by G. C. Goswami)

The prothetic vowel was very rare in MIA and the only noted example is Pāli itthī <*istrī <strī (Pischel ff 151). In modern Oṛiyā, the prothetic vowel is noticeable in a number of *tatsama* words. They generally arise in conjuncts of a sibilant + k, t, n, l etc. Prothesis is also found in some foreign words beginning with a cluster. The prothetic vowel in Oriyā is generally a, ā or i. Examples in Oriyā : O. Or. āsthāna (MBh. B4, RBh) for sthāna ; Or. iskul from Eng. *school* ; O. Or āreṇi 'fight' (raṇa) in "beṇi ahiṅkara yenhe huaī āreṇi" (MBh, M) ; O. Or āpyāna (pāna, BNG 8th ch.) Mod. Or. āspraddhā (spardhā) etc.

(C) EPENTHESIS

Epenthesis is the anticipation of an -i- or -u- before the consonant after which it occurs. Examples of epenthesis are found also in MIA ; but there it is not regular, not at all a characteristic of the language, only some sporadic instances being found (cf ODBL p378 Pischel ff 176).

In Māgadhī Apabhraṁśa, epenthesis does not seem to have occurred. It is found only to a very limited extent in Bihārī; and althrough it is quite common characteristic of Eastern Māgadhan group, it cannot be said to have come into force in the Māgadhan dialects or languages before the NIA period (ODBL ff 184).

But with reference to the Eastern Māgadhan, Assamese and Oṛiyā do not seem to possess the system as forceful as Bengali (dialectal). Epenthesis is not a noticeable feature in the standard colloquy of Assam as well as of Orissa; and stands as dialectal features as in the line of Bhojpurī and Assamese.

Possibly in the earlier history of the eastern languages, Skt. -kṣ- and -jñ- in the interior of words, developed the pronuciation of -khy- and -gy- respectively with an anticipated epenthetic -i- and then there was a tendency to develop it in the group, vowel (except -i-) + cluster of consonants + y.

Examples in Oṛiyā : O. Or. (insc.) āiṃgā, āiṃgāṃ, āgyāṃ for ājñā; rāija (insc. 1464A.D. also MP.) for rājya cf eastern Ass rāiz; nirimāila (nirmālya) (insc. 15th c), sarba-māinna (sarva-mānya ?) (insc.), koilā (kulyā, MP), Laīkṣaṇa (Lakṣmaṇa, GBG, RB. 4, 91), saīnyāsī (sanyāsī, GBG), Mod. Or. gaîṭhāla, gaiṇṭhāla but compare O. Or gaṇṭhiāḷa (BB. 165) (< skt. granthi) "a knot in the dresses of the newly married pairs" ; Or. gaînti cp. B gā:ti, gāîti 'a digging instrument' (skt. granth ? cp. pā. gantheti), saita (satya), bāida (vādya) (also GBG), eithi for -ethi- as in *eithi basithā* 'sit here'; -ājñā- pronounced as (āigyā, āgyo~) cf Bh aigā Ass. aiggān, ciggān for ajñāna; Or. sākṣāt pronounced as

(sāikkhyāta); kaîci, kaîcha cf B kāchim (kacchapa, *kacchaWā, *kacchiYā) ; O. Or. kointā (MBh. U. 59,34 also PG. 30), also kuintā (MBh. K 39) for kunti> *kuinti. Possibly pāruśa (pārśva *sts.* *pārśua compare Or. tattva=tatua); Or. bāchurī (vatsa-rūpa- pk *vaccharuva) cf Jn vāsarū B bāchur, Mai bacharu Bh bacharū Ass bācharu; O Or *ai*ri (ari, BGi if not from contaminated ari + vairī cf. Bh. I—Sen) ; O. Or. j*au*tiṣa (PP 21 etc.) for *joitiṣa<jyotiṣa- with the old orthography *au* for oi ; kaina (inscr. of 16th c. AD S. 49/2) for <*kainna <kanya.

Though epenthesis is not a prominaent factor in standard Oṛiyā, it is noticeable in the dialect of Western Oriyā (*vide* EOLS p 215), for examples : Western Or. uil for uli 'a variety of onion', kāil for kāli (kalye) thaịl for thaḷi (sthavi—). Sometimes, this epenthetic -i- is pronounced as -e- as in the dialectal Assamese (cf Kakati, footnote) viz, pāen, pāin for pāni (pānīya) rāet, rāit for rāti (rātri), bāeṛ, bāiṛ for bāṛi (vāṭikā) etc.

(D) METATHESIS OF VOWELS

Metathesis of vowels, as of consonant is also a noteworthy feature in Oriyā (*see* also pp. 64. 75, 79, 109) ; for examples, Or taṣu 'husk' (tuṣa) O. Or tasu (PG. 18) ; Or. chuā<*chāu (śāva pk chāva, *chāu); kuā beside kāu (kākaḥ>kāko>*kāwo, kāu) cf Aw kauā (kāu-ā) also Bh Mai kauā Ass kāuri Jn kāulā; kie as in *kie jāṇe* 'who knows' (kaḥ api>kevi>kei) compare also Or. kei, kehi; sie beside sehi, sei etc. Or. kiā: 'why' beside kāî as in *ete bhābanā kiā: paṛichi* 'why are in thinking so much' (kena, *kina inst sg pk keṇaṃ, kiṇaṃ Ap kiṇā, keṇā cf Bh. I. p. 133) cf O Or. kinā OB kê, kiṇa Mid B kiṇa; Or. khiā-piā 'eating and drinking' where khiā is comparable to khhāi (compare other verbal nouns jāi, pāi etc.) (of course, it may be formed after the analogy of piā); Or. pituḷi (puttalikā pk puttalā) cf OAw putali Jn putalā Ass putalā B putul; bāchur (vatsa-rūpa > *vaccharuva) etc.

(E) SAMPRASĀRAṆA

This hapens in case of -y- and -v- only. Here Oriyā stands in the same line of development with Maithilī (FM ff 111) for examples, Or. rakhuāḷa (rakṣapāla), gauṛa (gopa-la) 'cowherd' ; matuāḷa (mattapāla), kauṇasi (kaḥ punaḥ) 'who' ; chāi (chāyā) ; bāi 'sound' (vād-) etc.

(For the full treatment *see* pp. 61-62, 67-68, 69, 79)

CHAPTER XI

SOURCES OF ORIYĀ VOWELS

Oṛiyā -a- [ɔ] *represents* :

(i) OIA a MIA a : Or. kàrata 'a saw' (karapatram pk karapatta), gahira 'deep', (gabhīra pk gahīra) taṛā 'pool' (taḍāga pk taḍāga, talāa, talāa), thaḷa 'ground' (sthalam), thana 'breast' (stana), pahilā 'first' (cf. pratha-ma), pahiyā 'wheel' (pradhi-), bahirā 'deaf' (badhira-), śaha '100' (śatam), sahi 'female friend' (sakhī-), hariṛā (harītakī) etc.

(ii) OIA -ā- in few cases through absence of stress : Or. mausī 'mother's sister' (mātṛṣvasā pk māussī, maussiā), baṇiyā (vāṇija-pk vāṇia), panāi 'shoes' (upānah pk uvāṇahā, pāṇahā), saṛhu 'wife's sister's husband' (syāli-voḍhṛ, *sālḍhuo cf ND p 598 Bl. 121), O. Or. aêlā Mod. Or. āḷā, aāḷā (āmalaka- pk āmalaya), thaya 'bottom' (sthāgha cf Pischel skt lex. stāgham 'shallow' pk thāha), dhaṇiā 'coriander' (dhāneyam, dhānā pk dhāṇā), kalarā (kāravella-, kāravallī), kalejā 'liver' (kāleyaka- pk kāleya), Or. payara 'foot' (*pāda-ra, padākāra ?), O. Or. jamāi, juāî (MBh. GlO, Ai. 6) Mod. Or. juāī, joî (jāmāṭā pk jāmāuya), O. Or. aile, nailā (K. Ko.) but cp. āye (RB, BA, RBh) (skt āpayati pk āvei, āvai or pt. base āgata- pk. āa); Or. naṛiā 'cocoanut' (nārikela-?), aiṇṭhā (āmrṣṭa- cf mrṣṭa- pk maṭṭhā), Or. kaṇā (kāṇa-), gamāra beside guā:ra (grāmadāra pa gāmadārako), thaya 'erect' (*sthāta ? sthita) etc. *see* pp. 21, 115.

(iii) OIA -a- before conjuncts > MIA a + double consonants > NIA ā + single consonant > proto-Oriyā *-a- : Or. sabu (sarva), satara (saptadaśa), batiśa (dvātriṁśat), kapā (karpāsa), katuri 'scissors' (karttarī-), kamāra (karmakāra), ajā 'mother's father' (ārya- pk ajjaa), andhāra (andhakāra) etc. *see* pp. 15-16.

(iv) OIA ṛ : kacheri, kachiri (*kṛtya-gṛha), malā 'died' (mṛta-), paṛhibā (*pṛthati ? *vide* ND, paṭhati), daṛa 'firm' (dṛḍha-), kalā 'did' (kṛta), gañjā (gṛñja-), ghara (gṛha), saṛaka 'road' (sṛti), maṭhuā 'slow' (mṛṣṭa-), saṛibā 'to rot' (*śṛta cf skt śaṭati 'is dissolved'), dabakibā 'to startle' (cf dṛpyati), naṛa naṛa 'shaking' (cf. skt nṛtamāna)

(v) OIA -i- : Or. taraśu 'day before yesterday' (tiraḥ-śvaḥ ODBL p 403), parakha (parīkṣā pk parikkhā), O. Or. kāḷandī (MBh. M7, 9) for kālindī, gosāmaṇi (gosvāminī), thaya 'erect' (sthita, *sthāta), haḷadi 'turmeric' (haridrā pk hariddā, haliddā, -ī, haladdā, -ī), aṅgaṭhā 'fire place ?' (agniṣṭhikā pā. aggiṭṭho), baḷada (valīvarda), baṛaśī (vaḍiśa), khaṇatā (khanitra), pichaḷa (picchila), parasā 'service of food' (pariveṣa), O. Or. aḷapaṇā (ālimpana, Bh. i. 64)

(vi) OIA u : Or. mauṛa, mahuṛa (mukuṭa pk mauḍa), bauḷa (mukulam pk maula), ajāṛibā beside ujāṛibā 'to expose' (*ujjāṭaya- pk ujjāḍei), gahama (godhūmāḥ pk gohūma), bāha 'arms' (bāhu), pahañcibā 'to reach' (pk. pahuccai), samajhibā (sambudhya-), atāṛa (antaḥ-kuṭa), alaṇā (aḷavaṇaka) cf O. Or. aluṇi (GBG)

(vii) OIA e : Or. kalarā (kāravella- also kāravallī), aḷāica (cf skt elā poss. influenced by Pers. alācī, a descendent of skt. cf ND p. 25), paraṣā 'service of dishes' (pariveṣa- pk parivesai) cf. H. parosnā, pahaḷi (prahelikā pk paheliyā), paṛośī < *paṛaśī (prativeśika)

(viii) OIA o : Or. ḍama (ḍomba- pk ḍomba- ḍumba connected with Austro-Asiatic), kaāla 'tender' (komala-), O. Or. kaṭuāḷa (koṣṭhapāla), thaṇṭa 'beak' (troṭi influenced by tuṇḍa), gauṛa (gopa-la), janha O. Or. junha (jyotsnā pk joṇha), taṛibā 'to break' (troṭya- pk toḍai), ḍaṅgā (pk ḍonga), paraṛā (paṭola) etc. *see* also p. 24.

(ix) By anaptyxis : Or. janama (janma), khudara 'small' (kṣudra), chatara (satra), O. Or. bahani (vahni), kasana 'trouble' (kṛṣṇa), Or. baraṣa (varṣa), garajana (garjana) etc.

(x) OIA short a + consonant (stop, aspirate or sibilant) + short a > MIA awa, aha> Or. a [ɔ :] ; Or. dhaḷā (dhavala), kaaṇa (kaḥ puṇa pk kavaṇa), O. Or. āsrā (āśraya), naa (nava), chaa beside cha' (ṣaṭ, *ṣvaṣ), śaa beside śaha, śa (śata) etc. *see* p. 66

Oṛiyā -ā- [a] represents :

(i) OIA ā initial and before one consonant : Or. āriśi 'mirror' (ādarśa pk āarisa), ālua (āloka), gāā:, gā:' (grāma pk gāma), nāā:, nā:' (nāma pk ṇāma), nāhi 'navel' (nābhi), pāibā 'to get' (prāpaya-), pāḷibā 'to maintain' (pālaya-), bā: (vāma) etc.

(ii) OIA a, ā before two consonants : Or. āṭha (aṣṭha), āṅguṭhi 'ring' (aṅguṣṭhikā), ākhaṛā 'wrestling ground' (akṣavāṭa), rāṇī (rājñikā) etc.

(iii) -a, ā + a, ā- in contact in Late MIA = OIA a, ā + consonant + a, ā : Or. kumbhāra 'potter' (kumbhakāra), kamāra (karmakāra), khamāra 'farm-house' (*skambhāgāra), bhaṇḍāra (bhāṇḍāgāra), andhāra (andhakāra) etc.

(iv) OIA ṛ through an earlier stage of -a- : Or. ghāṇṭibā 'to mix' (ghṛṣṭa), māā 'mother' (mātṛ), yāā 'sister-in-law' (yātṛ), kānhu (kṛṣṇa), kāṛhibā 'to pull' (kṛṣ-), māṭi (mṛttikā) etc.

(v) OIA -i- : Or. bāhāṛā (bībhītaka pk baheḍaa), ḍāāṇi also ḍaṅkuṇī (ḍākinī), ḍāhāṇa (dakṣiṇa pk dāhiṇa), ākhu (ikṣu pk ucchu, ikkhu) etc.

(vi) OIA -a- initial through stress : O. Or. ābara Mod. Or. āhuri (apara pk avara), cāra 'messenger' (cara), āu 'and' (api), māhunta (mahāmātra), kāhāṇī (kathānikā), māhāṅgā (mahārghya), śāguṇā *sts.* (śakuna) etc. *see* p. 17.

Oṛiyā i, ī [i] represents :

(i) OIA MIA i, ī before single consonant or conjuncts : Or. citā 'painted' (citraka), jiṇibā 'to win' (jinā-), jibha (jihvā), iṭā 'brick' (iṣṭaka), itara 'vulgar' (itvara), diāsili 'match' (dīpaśalākā), tini (trīṇi), pilā (pītala) 'yellow' etc.

(ii) OIA ṛ MIA -i- through *ri : Or. ghia (ghṛta pk ghia), O. Or. diśai Mod. Or. diśe (dṛśyate), joi (jāmātṛka), chuïbā (spṛś-) 'to touch', sari 'like' (sadṛk), hia (hṛdaya), bichā (vṛścika), O. Or pichā 'question' (pṛcchā, PG 5) of O.B piricchā etc.

(iii) OIA a, ā in the interior of words : Or. pokhiri (pauṣkara pk pokkhara, pokkariṇī), diāsili (dīpaśalākā) 'match box', sindhi 'hole made by thieves' (saṁdhi pk saṁdhi), simiḷi beside simuḷi (śimbala- pk simbali conn. to Austro-Asiatic), pāliṅki (paryaṅka, palyaṅka pk pallaṅka), *sts.* phiṭikari (sphaṭikārī), phariṅga (patanga Pā paṭaṅga), ḍimiri (udumbara- cl. skt. uḍumbara- conn to Austro-Asiatic), O. Or. mānuṣi nom. sg Mod. Or. maṇiṣa (manuṣya-, māṇuṣa pk maṇussa, māṇusa), bhiṇoi 'elder sister's husband' (cf bhaginīpati pk bhainīvai), kachiri beside kacheri (*kṛtyagṛha pk kaccaharia), chatianā (chatraparṇa pk chattavaṇṇa, chattivaṇṇa, sattavaṇṇa) cf B chātim Mai chatibana Mid B chatīaṇa, chāñiaṇa ; Sarvānanda : catipanna ; Or. puṇi 'again' (punaḥ) etc.

(iv) OIA u- : Or. maṇiṣa 'man' (mānuṣa- pk māṇusa), Or. pituḷi 'puppet', pituḷā (MBh. U 116, G 31) (puttalikā pk puttaliā), ḍimiri (udumbara, late skt. uḍumbara). Also in MBh. of Śāralā-lāsa, there are cases of dissimilation viz, śiśumunā (suṣumnā) (MBh. M 4), *see* p. 118.

(v) OIA e, ai MIA e, ē : Or. kiāri (kedārikā), siṛhi 'staircase' (średhī, śreḍī, śreḍhī < *śrizdhi > *śrīḍhī pk seḍhī ND p. 604), bhāṇiji 'sister's son' (bhāgineya- pk bhāiṇejja, bhāiṇijja), diara (devara), diā (deva), Or. dihuṛi 'vestibule' (cf. dehalī), Or. majhi 'in middle' (madhye), āji (adye), kāli (kalye) etc.

(vi) OIA -ya- (ia) after consonants : Or. bhitara (abhyantara- pk abbhintara), bhijibā 'to get wet' (ef abhyajyate 'is anointed' cf. skt. abhyañjati 3. pl. pā abbhañjati), biñcā 'fanning' (vyajana-), pāliṅki (paryaṅka), *sts.* bitarake (inscr. *vide* EOLS) (vyatireka), O. Or. Agasti (Agastya) (MBh. Md.), dainī (dainya) (MBh. Md.), Mod. Or. ṗani (paṇya), O. Or. śiṣi (śiṣya, RB 20) ; niāya—a *sts.* for nyāya (SC 45), bāi (bāyu) (also in BSAS), kaṣāi (kaṣāya, SS) ; Mod. Or. patiārā (pratyayakara), pathi (pathya).

(vii) Through contraction of MIA contact vowels : *see* pp. 70, 75, 76, 77.

(viii) -i- as intrusive vowels : Or. soriṣa 'the mustard' (sarṣapa), O. Or. bhāriyā (bhāryā) 'wife', āriśi 'mirror' (ādarśa) etc.

(ix) OIA aya, ayā āyā etc. & vowel plus single consonant plus vowel > MIA y-glide : Or. chāi (chāyā pk chāa, chāhā), mainā 'a kind of bird' (skt. lex. madana-), mailā 'dirt' (cf skt. malam, malina- pk mayala, maila), liā 'fried rice' <*lāi (lājāḥ pk lāyā), lei 'paste' (lepa-pk leva), coi 'awakened' (cf. skt. cetayati, ceta-), O. Or. ṭhāba, thāi (sthāman pk ṭhāma Ap ṭhā:u). In MBh. of Śāralādāsa, we get frequent examples of -i- derived from y-glide, for examples, bāi (U. 32) (vāda-), jaintā, jayantā (U. 129), aibrata (B. 94) aibrata (B. 94), ayubrata (N 15), ayabrata (B 88) ; rāi (rāva, *rāya) (U. 47) O. Or. baile 'he spent' (vyaya RM 24th ch).

Oṛiyā u, ū [u] represents :

(i) OIA u, ū before single consonant or conjunct : Or. kumbhāra (kumbhakāra), pua (putra, pota), muhā̃ (mukham), mahu (madhu), śuā 'a bird' (śuka), bhuĩ (bhūmi), kua (kūpa), jhuṇā (dhūpana) B dhunā, bohu (vadhū), dhūā: (dhūma-) etc.

(ii) OIA ṛ MIA -u- . Or. puchibā 'to ask' (pṛccha-), buṛhā (vṛddha), saṛhu 'wife's sister's husband' (*śyāli-vṛdhṛ), nikuṭibā 'to grimace' (ni-kṛṣ-), śuṇibā (śr-ṇu-) etc.

(iii) Through contraction of MIA contact vowels : for the treatment *see* pp. 73, 75-76, 78, 80, 81.

(iv) OIA a, ā in the interior of words : Or. āñjuḷi (añjali pk añjali), śikuḷi (śṛṅkhala-pk saṅkhalā, siṅkhalā, saṅkalā), bāchuri 'calf', bacharā 'colt' (vatsarūpam), pokhuri beside pokhari, pokhiri (pauṣkara- pk pokkhara), pituḷi, pituḷā (puttalikā pk puttaliā), katurī (karttari- pk. kattarī 'scissors'), upujibā (utpadya- pk uppajjaī), uturibā 'to descend' (cf uttarati pk uttaraī), puruṇā (purāṇa-, purātana pk purāṇa), mukuḷā 'free' (cf skt mukta, *mukna pk mukka), ghāghuri 'small bell' (ghargarī pk ghaggara), saṇḍuāsi 'pincers' (sandaṁśaka), uchuḷibā 'to splash' (cf ucchalati), cāḷuni 'sieve' (cālanī), śimuḷi 'cotton tree' (śimbala) ; *see* also under Vowel Harmony.

(v) OIA au, ō MIA o, ō : Or. suāga, suhāga 'love' (saubhāgyam pk sohagga), sunā (sauvarṇa-), sundha 'sweet smelling' (saugandhya-), Or. guhāri 'petition' (*goha-kārikā),' guāḷa 'cowshed (go-śālā), ālua (āloka), kahuṇi 'elbow' (kaphoṇi pk kuhiṇī), śua (srotas), ruṣā 'anger' (roṣa), luha 'tear' (lota-), junha beside janha (jyotsnā), guiṭhā 'cow-dung' (goviṣṭhā), rumi (roma-), puṣa (pauṣa) etc. Also the sequence o/u is found in verbal patterns such as rahibā : ruhāibā, nohe : nuhe, bohibā : buhāibā etc.

(vi) OIA v (ua) after consonants> MIA (uw) : Or. sura (svara, *suvara) 'tune', paraśu 'day after tomorrow' (paraśva), śoibā: śuāibā (svap-), pāruśa 'side' *sts.* (pārśva- *pārśua), also in the *sts.* pronunciation of skt tattva, dvāra, svatva, Oṛiyā displays tatua, duāra, satua etc. respectively. cp. O. Or tatu (tattva, BSAS), jājulyamae (jājjvalyamaya, Bh i 34) Mod. Or. sīukāra (svīkāra, also RBh) sātukī (sāttvika, RM17), sātukya (BSAS), biśuāsa (viśvāsa, RB. 45)

(vii) -u- as anaptyctic vowel, specially with -ṁs-conjuncts : Or. bāûśa< *bāṅuśa (vaṁśa), māûsa (māṁsa), haûsa (haṁsa), *sts.* putura (putra), usuma (uṣma), sukhuma (sūkṣma), sutura (sūtra) etc. *see* p. 120.

(viii) OIA -i- : Or. goru (gairikā pk geruya, goria), suṅghibā 'to smell' (skt. dhātp. śiṅghati pā. siṅghati Deś. suṅghia 'smelt'), sunthā (sīmanta- pk sīmanta, sīmantaya), susumāra (śiṁśumāra-, śiśumāra pk susumāra), pimpuṛi (pipīlikā), O. Or. bihuṇa also bihune 'without' (vihīna in loc. with inf. of bhū->hu- *vide* ODBL p 772 but *bidhuna, bibhūrṇa to S. Sen Bh. I. p 124), bunda (viudu-), cuṛā (cipiṭaka pk civiḍa, cimiḍha, civiḍha) 'flattened rice', bhaüṇi (bhaginī pk bhaïnī, bahiṇī) ; also in the feminine suffixes, the penultimate syllable becomes -u- regularly, for examples, bāghuṇi, kuṭuṇi, (kuṭṭinī), daṅkuni (ḍākinī) etc.

(ix) MIA ava, ama, va through *W-glide : Or. cāuḷa (*camala, Deś.cāulā), O. Or. juāî (jāmātṛ-), Or kaṭuāḷa (koṣṭhapāla, koṭṭapāla), juāṇī (yamānikā), cānduā (candrātapa), āhuri (apara), āu (api) O. Or. loṇa (RM p. 62) Mod Or. luṇa (lavaṇa), rakhuāḷa (rakṣapāla), bhaûrī (bhramarikā), bhādua (bhādrapada), matuāḷa (mattapāla), māhunta (mahāmātra), daüṛi 'rope' (davara), O. Or. labaṇī Mod. Or. lahuni (navanīta), loṅguṭi (*liṅgapaṭṭa), pakhāuja (*paksāvādya, paksātodya), saüā (sapāda), sāûḷā 'tender' (śyāmala), śiuḷi (śaivāla), O. Or. bābana, bāuna Mod. Or. bāna (dvāpañcāśat), bhāu (bhāva), 'price', gaüṛa (gopa-la), cakuā (cakravāka), kādua (kardama), kaüṛi (kapardikā), kâûri (kāmarūpa), keuṭa (kaivarta), kau (kavayī), nāuri (*nāvakara ?), dāu 'revenge' (dāma), dāuṇi (dāmanī), tiuṇa, tiaṇa (tomanam,) naümi (navamī), neuṭibā (nivarta-) etc. *See pp.* 61-62, 67-68, 122.

Oṛiyā e, ē [e] represents :

(i) OIA [e:]>MIA [e, e:] : Or. eka (ekka<eka, aikya), kheta (kṣetra), seṭhi (śreṣṭhin) 'merchant', beta (votra), peṛi 'box' (peṭaka-), egāra (ekādaśa), pelibā 'to cast down' (preraya-) etc.

(ii) OIA [a: i]>MIA [e:, e] : Or. tela (tailya-), geru (gairikā), diśe (dṛśyate, dissaī), etc. *see* p. 25

(iii) OIA ṛ MIA -e- : Or. dekhibā 'to see' (dṛkṣ-), beṇta (vṛnta) 'handle', ghenibā 'to take' (gṛhṇa-), etc. *see* p. 31

(iv) OIA -a- MIA -e-, -a- : Or. śeja, śeya (śayyā pk sejjā), śela 'dart' (śalya- pk salla, sella), geṇḍu 'toy' (kanduka- pk geṇḍua), neuḷa (nakula pk neula), śeuḷa (śakula). Also Oṛiyā shows the harmonic modification of -a- to -e- in the following examples : aêḷā for *ayāḷā beside Mod. Or. aāḷā, ā'ḷā (āmalaka), O. Or. ḍeṅgurā (ḍaṅkārāva ?), roṣei beside roṣāi 'cooking' (rasavati), bāṛhei (vardhakī) 'carpenter', bāṛheṇi (vardhanikā) 'broom', ḍempha (darbha ?), chāeṇi for *chāyaṇi (chādanī), kacheṛi (*kṛtya-gṛha-) etc. *see* pp. 111-112.

(v) OIA -i- MIA i, o : Or. lekhibā (likh-), doṛha (dvi-ardha-), konho 'how' (Ap kinha, *kīdṛśna), teṛhā 'crooked' (cf. tiryak-), khoḷa (krīḍā), boṇi 'two' (*dvīni), bola 'wood-apple' (bilva pk bella) etc. *see* p. 23.

(vi) By contraction in MIA and neo-Māgadhan from various groups of OIA vowels : for the treatment *see* pp. 62-63. 70, 74. 76, 78, 79, 81.

(viii) *sts.* treatment of post-consonantal ya (ia) < Or. bebhāra 'conduct' (vyavahāra- pk vohāra), beṅga 'frog' (vyaṅga-), becibā 'to sell' (cf. Skt. vyaya-, vyayati pk *bejjai, *beccai ? *vide* ND 455 ODBL 471), O. Or bosana (vyasana-, RM 6, 64), Mod. Or. bebastā, bebasthā (vyavasthā, also in PBG) ; O. Or neñca (Bh ii, 78), neca (CM. IV, 65) (nyañc-, nīca) cp. O. Or. nucchā (40/8 EOLS).

(viii) OIA aya, ayo : Or. teisa (trayoviṁśati), tera (trayodaśa), cheḷi (chagala), deu (dadātu, *dayatu). In old Oṛiyā there are many instances of -e- derived from -aya- : *sts.* ude (udaya), udegiri (udayagiri), bije (vijaya), āśre (āśraya), prate (pratyaya) niśce (niścaya), āḷe (ālaya) etc.

Oṛiyā o, ō [o] represents :

(i) OIA [o:] : koili (kokila), oṭha (oṣṭha), goru (gorūpa), koṛa (kroṛa), gosāi (gosvāmi-) etc.

(ii) OIA au, ava MIA -ō- : Or. Oṛiā (audrika), moti (mauktika), mola (maulya), gora (gaura), pokhiri (pauṣkara-), oṛhaṇā (avaveṣṭana), osāra (apasāra), hoibā (bhava->ho)

(iii) OIA [u, u:] MIA [o, o:] : Or. pothī (pustaka), gonda (gundrā), 'gum', etc. *see* p 24.

(iv) OIA ṛ : Or. ghoṭibā (ghṛṣṭa), ghoṣāṛibā (ghṛṣ), gochā (guccha, *gṛpsa) etc. *see* p 31.

(v) Through contraction of various groups in OIA & MIA vowels in contact. *see* pp. 73, 74, 79-80.

(vi) OIA a (ɑ) through influence of labial or W-glide : Or. joī (jāmātā), rosei (rasavati), cobāibā (carv-), pohāibā (cf. prabhāti), bohū (vahū), boita (vahitra), O. Or. koṭoyāḷa Mod. Or. kaṭuāḷa (koṣṭhapāla), pohaḷa (pravāla), pāśoribā (prasmara-) 'to forget', boṛi (vaṭikā), bojha (vahya), bohibā (cf vahati), aṭhāṇoi in MBh. (aṣṭanavati), ekoiśa (ekaviṁśati), mādhoi (*mādhavika), mūcha <*mocha (śmaśrū) etc. *see* pp. 17-18.

(vii) *sts.* treatment of post-consonantal -va- (ua) : Mod. Or. soẽ (svayaṁ) O. Or. torā (tvarā, BC 68), sopna (svapna) etc.

CHAPTER XII

OIA AND MIA CONSONANTS IN ORIYĀ

General lines of change to Oṛiyā

The outlines of change shown below are practically the same as given in ODBL ff 235, but modified here and there to fit for the peculiar changes n Oṛiyā.

(I) *Single Consonants*

(1) Single initial consonants have generally remained unchanged. There have been, however, some cases of aspiration (including coalescence of a stop+h) and deaspiration of stops, and of cerebralisation of dentals and *vice versa* (e.g. d>ḍ, ḍ>d etc.), of change of a sibilant to a palatal c(h) and of -bh- to -h-. OIA y and v have changed to -j- and -b- and -r- as found as -l- beside -r-, n>l beside l>n and also as -r-. The most peculiar changes in Oṛiyā are: Skt d(h)>j(h) as well as Skt. j, y>d in ma..y cases.

(2) Single intervocal consonants :—

(a) The stops k, g, t, d, p, b and the semi-vowels, y, v have been dropped though the archaic forms are numerous (viz. k>g, p>b). With the loss of a stop, the glide -W- often results into -b- or -h- ; ṭ, ḍ have been reduced to -ṛ- (sometimes -r-) and -ḍh- to -ṛh- beside -t, d- to -ṛ- (especially in numerals) ; and in a number of Māgadhī inheritances ṛt (rt) have resulted in -ṛ- and -ṭ- as well ; y, v>j, b are not rare ; intervocal c, j both remain as c, j (in original Māgadhī words), or are dropped (in non-Māgadhī forms).

(b) The aspirates kh, gh, th, dh, ph, bh have been reduced to -h- ; ṭh, ḍh occur as -ṛh-.

(c) -m- has become a mere nasalisation of contiguous vowels through an intermediate stage -W͂- which has in many cases vocalised to -ũ- like Maithilī, or -W͂->m ; -ṇ, n- both occurred as -ṇ- (and also -n-) unlike -n- in other eastern languages.

(d) A single or intervocal sibilant (ś, ṣ, s) remains a sibilant usually ; an intervocal sibilant has transformed itself to -h- in some cases and sometimes -ṣ- to -kh- due to western influence. The change of -ś, s- to -ch- is also not rare.

(e) Māgadhī -l- from OIA r, l remains as -l- (as in Bengali, Assamese but unlike Bh. Mai. Magahī r). A solitary instance of OIA l>Or. r has been noticed ; r, l interchange a little. OIA r, ḍ and -l- have become -ḷ- in Oṛiyā ; also OIA r, l>Or. ṛ is not infrequent ; -ṛ- and -ḷ- often interchanges. The change of t, d, ṭ>Or. l (<*ḍ ?) is of doubtful nature.

(f) -h- remains in Modern Oṛiyā generally (whether original OIA or MIA h derived from OIA aspirates) and elision of intervocalic h is not so prominent as Bengali, Assamese. Sometimes a secondary -h- has developed in intervocalic positions as h-glide.

(g) The associative influence of a vowel or a consonant is found in many words in Oṛiyā. Besides the influence of -ṛ, r- in turning a dental to a cerebral, there are some cases where a palatal vowel or consonant changes a guttural or a dental to a palatal (viz., k, t>c, d(h)> j(h), *see* pp. 153-154, 160). The peculiar change of y, j>d in Oṛiyā is also to be found in intervocalic position (*see supra*, also p. 175)

(II) *Consonantal Groups*

These, initial or medial, have been reduced to a single consonant in Oṛiyā, after having undergone assimilation in the early MIA stage. The following were the main lines of treatment :—

(1) (a) Stop+stop in homorganic groups became a single stop ; stop+ aspirate became a single aspirate. In heterorganic groups, the first stop is assimilated to the second. This kind of consonant nexus occurred medially only.

(b) Stop+nasal : (i) In the group guttural+n, m, the nasal is assimilated, thus kn, gn, tn, km, gm>Or. k, g, t, k, g respectively (ii) In the group jñ>Or. ṇ, n (but -n- in other eastern languages) (iii) In the group voiced non-aspirate dental+n i.e. dn (which has already become nn in OIA e.g. bhid-na, chid-na>bhinna, chinna) became -n- in Oṛiyā. (iv) tm>Or. t (<eastern tt), p (from S.W.) in all the eastern languages.

(c) Stop or Aspirate+y :

(i) Gutturals, palatals, cerebrals and labials+y : the -y- was assimilated to the preceding consonant, which was doubled medially in MIA (but the genuine Māgadhī change seems to have been kiy, ḍiy etc). Oṛiyā preserves a single stop or aspirate.

(ii) Dentals+y : the group became -cc(h)-, -jj(h)- medially, and -c, ch, j, jh- initially. Oṛiyā preserves a single stop or aspirate. (This palatalisation of dental+y seems not to have been characteristic of old Māgadhī, which changed ty, dy etc. to tiy, yy etc. The palatalised forms evidently from other dialects in MIA seem to have overwhelmed Māgadhī).

(d) Stop or aspirate+r : The -r- was assimilated to the preceding sound, which was doubled in a medial position in MIA ; Oṛiyā has one stop or aspirate. The changes like tr>th, tr>ṭ in Oṛiyā are controversial. The group -dr- probably became -*dl- in the OIA source dialect of Māgadhī, whence we have -ll->-l- in few words in NIA. In the groups mr, and perhaps nr, the corresponding voiced stop developed between the nasal and -r- (cf. Or. āmba<āmra, etc.) In groups of more than two consonants, -r- being final, -r- is assimilated, viz., ktr, ntr, ptr>t, ndr>nd, ṣṭr>ṭ, ṅkr>kh.

(e) Stop or aspirate+l: assimilation of -l-. In the group, -ml- the corresponding voiced stop developed between the nasal and -l- (e.g. Or. āmbiḷa>skt. amla etc.)

(f) Stop or aspirate+v: assimilation of -v-. (In the groups -tv-, -dv-, -dhv- the resultant form in some cases is p, b, bh in Modern Oṛiyā as in other NIA; this labialisation is non-Māgadhī). The changes of skt. ṭv>pkt. pp>p and skt. ḍv>pkt. bb, vv>b are also inherited by Oṛiyā like other NIA languages (cf. Or. chapana, chabiśa etc.)

(g) Stop+sibilant:

(i) kṣ gives kh (through the Māgadhī) ch (through extra-Māgadhī forms) [also in other eastern languages except Ass -s- (=ch)].

(ii) kṣṇ becomes -n-(?) beside -kh- in Oṛiyā; also tkṣ, kṣm, kṣy>kh in Oṛiyā,

(iii) ts, ps>MIA cch>Or. ch as in other eastern languages except Ass. s (<ch).

(2) (a) Nasal+stop or aspirate: for treatment in Oṛiyā *see* pp. 82-92. The notable changes in Oṛiyā are: sometimes ṁb>m, mb(h)>m, ñc>n (<pkt ṇṇ), ṅkt>nt (<pkt nt).

(b) Nasal+nasal: the OIA groups were ṇṇ, nn and mm. They occur as -n- and -m- in Oṛiyā;

(c) Nasal (*anusvāra*)+y, r, l, v, ś(ṣ), s, h: *see* pp.87-88, 92-98.

(3) -yy- gave -j- in Oṛiyā and in other eastern languages except Ass. z (<j).

(4) (a) r+stop or aspirate:

(i) -r- before a guttural, palatal or labial; the latter was doubled and the -r- was assimilated. In Oṛiyā, these assimilated groups result in a single guttural, palatal or labial stop or aspirate.

(ii) -r-+dental stop or aspirate of OIA show a twofold treatment: the -r- cerebralised and doubled the dental, and was so assimilated; or it simply doubled the dental without cerebralizing it. The former is the proper Māgadhī treatment; the latter non-Māgadhī. Oṛiyā has -ṭ(h)-, -ṛ(h)- in Māgadhī and -t(h), -d(h)- in apparently non-Māgadhī forms. A solitary instance of a peculiar change, rdh>pkt. ḍḍh>h in Oṛiyā is attested in other NIA languages.

(b) r+nasal: rṇ, rn were assimilated to ṇṇ in MIA which gave -n- in Oṛiyā and rm>mm>m.

(c) ry: the early MIA (non-Māgadhī) assimilation was to -yy- which gave second MIA -jj- whence Oṛiyā -j-. In one or two instances, cases of OIA ry>yy>-y- are known, viz., Or. āī 'grandmother' Ass. B. āi, Bh aiyā=ayyia

<āryikā [cf. also OB ācāe (c. 36) for ācāya ; but in O. Or. (insc.) ācāye (1.26, EOLS) for ācārya, -y- stands for -j- cf. ODBL pp. 121-122, 1062, EOLS p. 68]. The genuine Māgadhī change was to -liy- which is not preserved in the eastern languages, but -ry- also occurs - as -l- in the eastern NIA (through a stage ly>ll), cp. or. palaṅka B pālaṅka, pālaṅ Bh palaṅ Ass pāleṅ Mai palaṅa, palaṅā<skt. paryaṅka.

(d) -rl->MIA ll>Oṛiyā l.

(e) -rv- is found as bb>-b- in Oṛiyā.

(f) r+sibilant : assimilation with the sibilant, which is doubled (-śś, ss=śś in Māgadhī) and is then reduced to a single sibilant pronounced as alveolar -s- or alveolo-palatal -sy- in standard Oṛiyā, but dental -s- in southern dialect (also -ś- in Bengali but -s- in Bh. Maí. Aw and -x/h- in Assamese). The unusual change of skt. rṣ>pkt. h>h is found in a solitary instance in Oṛiyā attested in other NIA languages.

(g) -rh->-lh- in Māgadhī whence -ḷ- in Oṛiyā (but B. Ass -l- ; in other NIA l, ll, lh),

(h) Consonantal group -rtm->pkt. ṭṭ>Or. ṭ.

(5) (a) -l-+stop : assimilation of -l-, leading to a single stop in Oṛiyā.

(b) -lm->MIA mm>-m- in Oṛiyā.

(c) -ly->Old Māgadhī yy>Or. -j- and in Bengali but possibly not in Bh. Ass. cf Or. sajāru also in B (śalya-rūpa). But examples showing the non-Māgadhī change of ly (ry)>ll>-l- is frequent.

(d) -ll->MIA ll>Oṛiyā -l-.

(e) lv->MIA ll>Oṛiyā -l-.

(6) -vy->MIA vv, bb>Or. -b-. This is a non-Māgadhi change : the original Māgadhī alteration of -vy- was to -viy- which is lost and vy>vv, bb forms have become established ; -vy- becoming -b-, though frequent in initial position is noticed medially only in the future affix, -b-, -ib-.

(7) (a) Groups with sibilant+stop or aspirate ; -śc-, -ṣk-, -ṣṭ(h)-, -ṣp-, -sk(h)-, -st(h)-, -sp(h)- became initially an aspirate, medially a stop+its aspirate in MIA. Oṛiyā has a single aspirate. The other noteworthy changes found in Oṛiyā are : st>ṭ, sth>ṭh, ṣṭ(h)>pkt. ṭṭha>ṛh and sk>pkt. cch>-c- after deaspiration.

(b) Sibilant+nasal :

(i) ṣṇ>MIA ṇh>Or. ṇh with sporadic loss of aspiration (OB ṇh MB. NB n Bh. Mai. Aw. nh Ass. n.)

(ii) sn>MIA nh>Or. nh with sporadic loss of aspiration (OB n(h) NB n Bh. Mai. Aw. nh Ass. n).

(iii) śm, ṣm, sm>MIA ss (śś in Māgadhī), mh>Or. s, m<mh [OB s, mh, (m)]. NB s, m Bh s, m Ass h, m Aw. Mai s, m ; also Skt. ṣm>Pkt. pph> Or. p after deaspiration.

(c) Sibilant+y : normally, assimilated to double sibilant in MIA, whence Oṛiyā single sibilant. There are cases of modification of this assimilated double sibilant to -h- which is found in Bengali, Bhojpurī and Oṛiyā. The source of these -h- forms is of obscure origin, kariṣyati>karissaī>karihaī> kariho, *karihi, karī in Bhojpurī, (cp. early Mai karihasi, Mai. karahaha= kariṣyasi but not in Gujrātī, in Mārwārī, in western Pañjābī. In Bengali also, kariṣya-tha> *karihaha>kariha, karia, kariyo, koro 'you will do' (future imperative) cf kariṣyāmi>*karṣāmi>Pāli kassāmi=kāhāmi pk kāhaṁ, dāhaṁ= kariṣyāmi, dāsyāmi where sy, ṣy>-h- which all have -s-. Compare also the oblique base tāha -<tasya pkt. *tassa in Or. B. Ass. The other important changes in Oṛiyā are : skt. śy, also cch>ch, tsy>ch and kṣy>kh.

(d) sibilant+r, l, v : assimilation of r, l, v resulting in double sibilant >single sibilant pronounced as alveolar -s- or alveolo-palatal -sy- in standard Oṛiyā, and dental -s- in dialectal Oṛiyā (southern) cf ś in Bengali, -s- in Bh. Mai. Aw and -x/h- (<s) in Assamese. Also skt. śr>pkt. cch>Or. ch.

(8) -h-+nasal (hṇ, hn, hm) : this group underwent metathesis in MIA (ṇh, nh, mh). They have resulted in a single nasal in B. Ass. Or. but nh in Mai. Aw. Bh. (cp. Or. cina 'trace', cinā 'acquainted' (cihna) Ass cin 'sign' B. acin 'unknown', cenā 'known' but Bh cinh Mai cenh 'mark' Aw cīnh 'token' (CDIA p. 262)

-hy- probably became *-hiy- in Old Māgadhī. In other MIA it became -jjh->Or. jh, also in other eastern languages except Ass z(<jh). The *-hiy- forms are not represented in the modern eastern languages ; but the old Oṛiyā forms like bāhiyya, grāhiyya, dahiyya (vāhya, grāhya, dāhya) possibly are the relics of the Māgadhan forms (*see infra*, p. 144)

-h-+-v->pkt. bbh>-bh- in Oṛiyā and other eastern languages.

(9) *Visarga*+consonant, simply doubled the latter, and Oṛiyā has a single consonant representing the OIA group.

In groups of more than two consonants, the semi-vowels, liquids or sibilants were assimilated and then they behaved like OIA groups of two consonants. A post-consonantal -v- or -y- sometimes labialised or palatalised a preceding dental, viz. Or. ubhā 'standing, appearing'<MIA ubbha<uddhva for ūrdhva ; cp. B. bāica 'boat-race' cf. Ass, bāicā 'rower' MIA *vāhicca <*vāhitrya <vahitra. The OIA group -kṣṇ- becoming Or. -n- is rather a doubtful development (*see infra*).

Few other groups of more than two consonants are seen to develop in Oṛiyā in the following manner :

Skt. ktr, ntr, ptr>Or. t.

Skt. ndr>Or. nd.

Skt. ṣṭr, rtm>Or. ṭ.

Skt. ṅkr>Or. kh.

Skt. ṅkt>pkt. nt>Or. nt.

Skt. tkṣ, kṣṇ, kṣm, kṣy>Or. kh beside Skt. kṣṇ>Or. n(?).

Skt. tsy>Or. ch.

Phonological changes of a more general character are discussed below :

PHONOLOGICAL CHANGES OF A GENERAL CHARACTER

(A) ASPIRATION

The aspiration of unvoiced initial stops represents a certain phase in MIA phonology; e.g., MIA khappara OIA karpara ; MIA phaṇasa OIA panasa ; MIA khujja OIA kubja ; MIA khilaa OIA kīlaka etc. In OIA too, cases of alternation of mb and mbh were found (Alt. Gram. I : Wackernagel ff 109). This tendency is greater still in NIA languages.

No satisfactory explanation covering all cases of aspiration has yet been suggested. In many cases OIA sp, st, sk, sc were represented as skt. p, t, k, c while MIA shows ph, th, kh, ch. And naturally it was suggested that s+k, c, t, p, n at the head of the word gave rise to the process of aspiration. Thus, while an MIA form like -khappara- has been explained on the assumption that it must have come from an OIA form like *skarpara (Pischel ff 205 Bl. ff 84) based on the illustrating existence of OIA forms with an initial -s-, followed by an unvoiced stops in alternation with forms without an s- (Wackernagel Band I ff 230), NIA forms like bhusi (skt busa) etc. with aspirations of sonant stops, remain unexplained. Sir R. G. Bhandarkar's suggestion that a vowel or a mute is aspirated through the influence of an adjoining aspirate or an aspirated mute (W. Lectures p. 189), is inoperative in cases like khujja (skt. kubja), khilaa (skt. kīlaka) which he considers to be cases of aspiration without any apparent reason (*ibid* p. 190). Following Jacobi, Jules Bloch sees some connection of s and r in aspirating a stop but he is not satisfied with his explanation as he admits. Dr. Chatterjee is of opinion that aspiration may be due to contamination with other forms plus a vague sense of onomatopoeia rather than to the presence of any particular sound, especially in initial aspiration (ODBL ff 236).

Cases of aspiration in Oṛiyā :

(i) In the combination of -sk, st, sc, sp- etc. : Or. khapara (*skarpara), phāsa (*spāśa) 'snare', khosibā (*skoṣati cf skt kuṣṇāti), khamba (skambha-) 'post', bāmpha 'vapour' (bāṣpa), khambhāra 'farm-house' (skambhāgāra), thamāibā 'to stop' (cf stambhate), thana 'breast' (stana), thopa (*stupya cf skt stūpa-), thoṛā 'little' (stoka), pheribā 'to return' (*sperayati caus. cf *spirati cf ND), thaṇḍā 'cold' (stabdha-) etc.

(ii) In the combination -r- and consonant : Or. kheḷa (krīḍ-), kheccṛi, kheccuṛi 'boiled rice and pulse' (kṛsara cf ODBL but cf skt khiccā Deś. khiccā), dhokā 'deception' (droha, drogha), thaṇṭa 'beak' (troṭi with inf. of tuṇḍa ?). thāṭa 'array' (*traṭṭa, taṣṭa ? cf ND), dhusā 'a woollen shawl' (dūrśam 'cloth' dūśyam 'tent' duṣyam 'cloth' cf ND but in ODBL dhukṣ ?), bheṇḍi (vṛntāka 'egg plant' skt lex. bhaṇṭākī), O. Or. marbhuta (MBh. U. 89, B 76) beside marbuda (arbuda), libhibā (nir-vā or nir-vahati pk nivvahaï) *sts.* bhrathā (bhartā RM 29, NC 6).

(iii) In the association with s, r : Or. jhuṭā (juṣṭa-), jhuṇā ? (jīrṇa-, jūrṇa-), phārasā cf B phalsā 'a kind of fruit' (pāruṣaka-), O. Or. Bharatha (Bharata, RB 71), athaḷa (atala, BC 6).

(iv) Aspiration through metathesis : Or. pujhārī (pūjākārī, *pujāhārī) also in EOLS, Or. bibhā (vivāha), ghara (gṛha), gadha (gardabha), bhuk (bubhukṣā), dhaṇḍa (duṇḍubha), bheboḷā (MBh. B. 39) (vihvala), bebhāra (vyavahāra), kaṛhā (kaṭāha), paghā (pragraha) 'rope', nighā (nigraha), O. Or. nirbhā (nirvāha) (MBh As. 20), ājhû (adya-hi) (also MBh. B. 114 Ai. 20) O. Or. (inscr.) bhiāṇa (vidhāna), bhairo (bahir) (inscr.) but mod. Or. bāhāra, O. Or. (inscr.) ghetalā (cf. skt. gṛhīta) gheti 'taking' (gṛhītvā, PBG), O. Or. bhūa (vyūha, RBh).

In some cases in Oṛiyā, aspiration develops in the association of -n-, viz., O. Or. santha (santa) [MBh. Sl p. 3], kānthi (kānti) [MBh. U 38], saṇḍha (saṇḍa), senhā (B. 107) beside sena [MBh. B 91] (sena). In rare instances -l- causes aspiration as in Maithilī but it is not so prominent like Sindhī, Lahandā and Pañjābī (Jain ff. 128 Jha : FM ff. 176, LM ff 148) viz., Or. kolha 'a caste' (kola), malhāra (mallāra, also in MBh. As. 28), O. Or. solha (Sl. 21). Mod. Or. sola cf. B. solā.

In Or. haṃsuli 'an ornament of neck' a prothetic -h- has developed from skt aṁsa- 'shoulder' ; prothetic -h- also in hā ṛa 'bone' (asthi- ?) (For the frequent use of prothetic -h- in Pañjābī, *see* 'Pañjābī bhāṣā dā vikās' by Dunichand ff 200).

For the treatment of h-glide in intervocalic position *see* pp. 50-52.

In the following cases, the aspiration is spontaneous and requires further investigation : viz. Or. phaṛiṅga (pataṅga), khila 'bolt' (kīlaka)

In old Oṛiyā, some cases are found where unaspirated consonants are aspirated due to the influence of the aspirated sounds in the words or phrases (cf Tripathi : EOLS p. 118) viz. bharāibhā for bharāibā, bhallibhākai for bharibākai ? dhīpa-dhūpa for dīpa-dhūpa 'lamp and incense'. These instances usually occur in southern inscriptions.

(B) DEASPIRATION

The process of de-aspiration is found in OIA (Alt. Gram. Band I ff 104, 109) Pāli (Geiger ff 40) and Pkts. (Pischel ff 213-214). In Apabhraṁśa de-aspiration is comparatively rare when compared with NIA (Bloch : L' Indo-aryèn pp. 60-62, Tagare : HGA ff 44). The NIA languages however show no uniformity in de-aspiration.

Of all the NIA languages, Sinhalese has lost all aspirations. The de-aspiration of final consonant in Nepālī, Gujrātī, Marāṭhī and largely also in Bengali has been carried out thoroughly. Intervocalic -h- also has disappeared entirely in Nepālī and largely in Gujrātī. But Hindī which preserves intervocalic -h-, tends to preserve final aspirations as well (Guj. Phon. ff 40, LM ff 87). Similarly, Pañjābī in eastern and north-central regions is also conservative in this respect ; but in Pañjābī the cases where final voiced aspirates of pkt. stage lose their aspiration are quite regular, but those of unvoiced aspirates losing their -h- are not so common (Jain ff 136).

Among the eastern languages, Maithilī, Magahī, Bhojpurī and Awadhī have preserved aspiration and also intervocalic -h-. In Maithilī cases of deaspiration occur generally when there is h or ś in the preceding syllable, and also when the original aspirated surds have their mute and aspirate elements separated by anaptyxis (FM ff 130). Bhojpurī too, has no tendency of deaspiration and hence is comparable to Hindī (ODBH ff 170). In Assamese, de-aspiration takes place of the original OIA aspiration as well as of the resultant MIA aspirations of OIA intervocal sound groups ṣṭ, st, ṣk etc. Here, also two aspirates in the same word is not tolerated (FA ff 351-353). In Bengali, the tendency to drop aspiration manifested towards the end of 14th century. In modern Bengali loss of intervocalic -h- and of aspiration of the aspirated mute finally or immediately preceding another consonant is much prominent (ODBL ff 240).

In modern Oṛiyā, the de-aspiration takes place in the following conditions :

(i) The kind of aspiration by transposition of -h- in some cases is naturally accompanied by deaspiration within the same word, viz. Or. jhuṭa (juṣṭa) for *-juṭha-, etc.

(ii) Final aspirations are deaspirated but literary forms tend to preserve them, viz. Or. bhuk (bubhukṣā) for bhukh etc.

(iii) Intervocalic aspirations usually remain, viz. bohu beside bou (vadhū) gahama B gam (godhūmāḥ) etc.

(iv) Initial aspiration remains, whether voiced or unvoiced.

(v) Colloquial Oṛiyā agrees with the Bengali standard colloquial in changing the -ch- of verb forms to -c- (ODBL p. 444) viz. āsuchi, āsuci; karuchi, karuci, etc.

De-aspiration is a common feature of the southern dialect of Oṛiyā and the old Oṛiyā inscriptions too, show some evidences of the same, which possibly owing to the influence of Dravidian represented aspirated as unaspirated (cf Tripathi, EOLS p. 117) cf jh in māji, jari; th in tāḷi, tāuṇa, stāī, nāta; had in adisṭhāṇe, darama, padmanidi, bidāna, madyānna; ph in sappaḷa (saphala); bh in Bāṇudeva etc.

Examples from Oṛiyā Or. iṭā (iṣṭaka), O. Or. stabada (stabdha) (MBh. K 33, 36), bhikārī (bhikṣākārika), bhika (bhikṣā), śikuḷi (śṛṅkhala), śaṅka (śaṅkha), caükā (catuṣka), kachiri beside kaciri (*kṛtya-gṛha), māhāṅgā (mahārghya), oṭa (uṣṭra), pāga (bhāgya), duā (dhruva), pālaṭa (paryasta), kāndha (skandha), sañja (sandhyā), khamba (skambha), nikiḷibā (*niṣ-kālaya cf niṣkālya), nika 'good' (niṣkṛta), nikāsa (niṣkāsa), nikamā (niṣkarmā), ācambit (*ācchambha cf Pā chambeti *vide* ND), chuñcā, (chucchundara-), sijibā (sidhya- cf Pā sijjati), bhaṭā 'ebb tide' (bhraṣṭa), menṭibā (mṛṣṭa), jhuṭā (juṣṭa), ghoṭibā (ghṛṣṭa-), piṭibā (pṛṣṭa-), dhiṭa (dhṛṣṭa), heṭa (adhastāt, *adhiṣṭāt MIA heṭṭha Budh Skt heṣṭā), daṛa (dṛḍha-), chaṇḍā (stabdha-), moṇḍa, maṇḍa (mūrdhan), meṇḍ(h)ā (meḍhra-), bhāti 'bellows' (bhastrā), tetiśa (trayastriṁśat, pk. tettīsaṁ), hatiāra (*hasta-kāra), dāi (dhātrī), bhāpa, bāmpha, bhāmpa (bāspa), caüpāyā (catuṣpāda), chepa (śleṣmā), āṛa(ardha), tutiyā 'blue vitriol' (tuttham), O. Or. (inscr.) bākhara (bhāskara). Intervocalic -h- elided in O. Or. mausadhi (MBh U53) beside mahauṣadhi (U10), boita (vahitra), O. Or. kṣauṇī (akṣauhiṇī), iāku, yāku (ihāku), sasra (MBh Dr.) (sahasra), duiṇī (duhitā) etc.

(C) VOICING AND UNVOICING

Voicing represents a stage in the growth of OIA before the complete elision of the intervocal stops in MIA viz. calati>caladi>calaδi>cala'i>cale in B. Ass Bh etc. but -caḷe- in Oṛiyā; cp. *calyati>*calladi>*callai>cāle in Oṛiyā. In some dialects of MIA the changes in the single intervocal stops were arrested at this stage before they were totally elided. Voicing was very common in Ap. and it also took place in Śaurasenī and Māgadhī with regard to t, th (Pischel ff 203) and in MIA generally to the cerebrals (Pischel ff 198).

The voicing of unvoiced consonants and the reverse process occur in sporadic cases in Oṛiyā as well as in other NIA languages in *sts.* words. The following are the examples of voicing in Oṛiyā :—

k>g : Or. bhagata (bhakta, also in 10th c. insc. OHRJ, vol. II No. ii p. 21), diga-bidiga (dik-vidik) (also in MBh. K46), śāguṇā (śakuna),

also sārguṇā ; śāga (śāka), egāra (ekādaśa), baga (vaka), pāga (pāka) śagaṛa (śakaṭa) 'vehicle', ātaṅga (ātaṅka), O. Or. (Simhācalam insc) nāyaga (nāyaka), magara (makara, JC).

c>j : Or. nārāja (nārāca), also in MBh B 31, cf Jn nārājāṁcī 'of arrows'.

ṭ>ḍ>ṛ : Or. śagaṛa (śakaṭa), taṛa (taḷa) cf. nai-taṛa (EOLS, 7.22).

t>d : Or. tabata, tabati 'heat' (tapta).

p>b : O. Or. (siṁhācalam insc.) oḍa-balli (oḍa-pallī<uḍra-pallī).

The following are the examples of unvoicing in Oṛiyā : cases of unvoicing in g>k, dh>th, j>c, b>p etc. O. Or. sthakita (sthagita, MBh K48, U81, M39, Sv. 18), kāntha (skandha ?) 'wall' cf Panj. kandh, B (dial.) kā:th, Or. pāga (bhāgya), taṇḍa 'fine' (daṇḍa), bicanā 'fan' (vyajanaka), O. Or. insc. apasara (avasara, EOLS 13.13, 23.15).

In old Oṛiyā inscriptions of Southern dialects, there are frequent cases of devoicing, viz. cāutibā, apasare, buthabāre, jāpa-candrārka (for jāuthibā, avasare, budhavāre, yāvat-candrārka etc.) (cf. Tripathi, EOLS p. 118).

(D) METATHESIS

Metathesis is the interchange of two phonemes within a word (cf. Language by Bloomfield, ff 21.10).

Metathesis is found occasionally in OIA and MIA. Some Oṛiyā words are the result of this early metathesis, e.g., Or. ghara (*garha, gṛha), daha (also in O. Or. insc) (hada<hrada), hāḷuka 'light' (cf. MIA halukka<laghuka) etc. Further examples in Oṛiyā are :—Or. bebhāra (vyavahāra), ghenibā 'to take' (gṛhṇa-), ahia (avidhavā) cf Mar. aheva B eyo Mid B āiha ; gadha (gardabha), bibhā (vivāha), pitāśa (piśāca>*picāśa), bhuk (bubhukṣā), kara-maṅgā cf B kāmrāṅā O. Or. sohaṛa, sohaḷa<*soḷaha (ṣoṛaśa) mod. Or. ṣoḷa.

The metathesis of -h- causing aspiration and deaspiration has been noticed above (also *see* pp. 37, 135) as in gadha (gardabha, gaddaha cf Mai gadahā etc.). For the metathesis of vowels *see* pp. 64. 75, 79, 109. 122.

Metathesis of -r- is a peculiar phenomenon in Oṛiyā which is seen to be developed from old stage, viz. O. Or. (inscr.) pravradhamāne beside prabar-dhamāne, krapadaka beside kapardaka, prabe for parve etc. Mod. Or. āspraddhā (spardhā) O. Or. troṇa (RBR 12) troṇara (BA) truṇi (tūṇīra) (also in MBh), kroṭa (koṭara), also in MBh, AKG ; kātrīka for kārttika (O. Or. inscr.) bhrathā (RM. 29, NC 6) (bhartā) ākraśaī, ākrosibā (BGi) (for ākarṣ-) dṛmati (=durmati), dṛbala (durvala), mṛdhani (mūrdhaṇi), drapiṣṭa (darpiṣṭha) (BGi), kṛma (kūrma, GBG), chadrame (=chadmare BP. GBG), catṛdaśa (caturdaśa PBG), dhṛma (BNG 4th ch.), dhūrma (BNG 3rd ch.) (for dhūmra), sambharbe (sambhramare GBh. 70).

(E) HAPLOLOGY

Haplology is the dropping of one of two similar sounds or syllables in the same word. Loss of consonants by haplology is noticed in some cases in Oṛiyā : e.g., O.Or. (inscr.) paṭanāeṅkara for paṭanāeka-ṅkara 'of Paṭṭanāyaka', bāḷeṅkā for bāḷa-leṅkā 'the boy servant', Maṅga-rāja for Maṅgala-rāja 'the auspicious lord', also compare. sāmala from sāsamala (sahasramalla) 'the valiant wrestler' (cf. Tripathi, EOLS, p. 119). Mod. Or. nahuruṇi (nakha-haraṇikā if not from nakhakara cf ND), dihuṛi (dīpavartti pk diva-vaṭṭi), diāḷi (dipāvalī), O. Or. purustama (DR) mod. Or. purastama (puruṣottama, *purusostama, for the development of tt>st in Oṛiyā *see* p. 141) Mod. Or. pāduka (pādodaka) cf. B. pādok. O. Or. atharvāṇī (atharva+vāṇī RM p. 17), Or. osasta beside osta (aśvattha) etc.

(F) ECHO-WORDS

Echo-words and onomatopoetic formations on a lavish scale are as much as a characteristic of Oṛiyā as of other NIA languages. "A noun or verb or some other word is partially modified in its initial syllable either by substituting a new consonant or by a new consonant as well as a new vowel, and in this way this mutilated Echo-word, as it has been called, is created and it is tagged on to the original word, and these by two combination give an idea of a group of things or actions associated with that indicated by the basic word" (S. K. Chatterjee : 'Integration in linguistic pattern in India' *vide* Bulletin of Phil. Society Vol. 1, pt. 1.). This is the characteristic of the Kolarian. the Dravidian and of NIA languages. Examples in Oṛiyā : kāṭha-phāṭa 'wood and the like', bhāta-phāta 'boiled rice and the like' bhika-phika 'alms and the like', gariba-gurubā 'poor people and the like', pilā-pili 'children and the like' (cf. Tripathi, EOLS pp. 206-212).

(G) COMPOUND-WORDS

The varied types of compounds in NIA languages have been examined by Dr. S. K. Chatterjee (Polyglottism in Indo-Aryan : Proceedings and Transactions of the Seventh All India Oriental Conference, Baroda, 1935). In this type of compound, the habit of grouping two synonyms for the sake of amplification or the generalisation of the meaning conveyed by one of them is always at play (for example Or. hāṭa-bāṭa). In the other type of translation-compounds, a word of native origin may be compounded with that of a foreign origin (viz. Or. kāgaja-pattara etc.) The examples from Oṛiyā for both the types are the following :

Or. āś-pāśa 'neighbourhood etc.', adaḷa-badaḷa 'exchange etc.', hāri-guhāri 'complaints', gacha-brucha 'trees', hāṭa-bāṭa 'the market and road', ghara-duāra-' house and the gate i.e. 'neighbourhood', 'everywhere', chuā:-chuti 'untouchability etc.' heji-bujhi 'understanding' (cf. also SS), kāgaja-patra 'papers etc.' (also RH 47), dara-dāma 'price', dekhā-cāhā: 'observation' (*see* also Tripathi, EOLS pp. 206-212).

(H) BLENDING

Often both the synonymous compounds are fused into one single word where the first part of one word is fitted into the last part of another, intermediate portions being dropped. The following are the examples of blending in Oṛiyā, e.g., Or. bandāpanā 'worship' (also MBh. CM II, 48 etc.) (vandana+arpaṇa ? there might be an influence of paṇa suffix) ; Or. jura (jūrṇa+cura ?) 'broken' ; *sts.* snāhāna (*ts.* snāna and *tbh.* nāha cf. Bull. of Phil. Society, Cal. Vol. 1, pt. 1) ; dhaṇḍā (dhvaja+daṇḍa, *vide* ND) ; O. Or. docāra 'a messenger' (dūta+cāra-, RB 56) ; O. Or. cāmañjarī (cf. śirc śvet chatiri, āḷata cāmañjarī, Bh. ii 19) (cāmara+mañjarī or mañjula ?) Or nāhākā 'chief'<Or nāha<nātha+skt. nāyaka ; O. Or. tretayā (MBh. B96)<tretā+tṛtīya ; śibāḷa (PG9)<śivā+śṛgāla ; O. Or. pañciśa '25<*tbh.* paciśa+skt. pañca (S. 54/6 EOLS also BG) . Or. anyācāra<skt. anyāya+skt. ācāra for anācāra. Or. juṛā 'knot of hair' (jūṭa or, jaṭā+cūḍa pk. jūḍa ?) ; Or. dharati 'earth' (dharitrī+dharaṇī) ; gopyana (gopana+gopya, Bh. i. 65, ii. 101) ; ṣaṣṭhama (ṣaṣṭha+pañcama, PC 25) etc.

(I) CONSONANTS IN CONTACT

Within the limit of a word there is hardly anything like contact of consonants in the standard colloquial. In it vowels are distinctly enunciated. There is nothing like hurried pronunciation and consonants are hardly thrown together in the standard colloquial. However in old Oṛiyā, some instances are found where consonants in nexus are not tolerated, one of them being dropped usually, viz. talaya for tat-laya (GBh 35 etc.) bidyu-pari for vidyut (L. etc.), pratipa dina for pratipad- (BG etc) In modern Oṛiyā, pā:jaṇa for pāñca jaṇa (*vide* OBI).

(J) ASSIMILATION

Usually Oṛiyā does not show the type of assimilation. progressive or regressive, so usual with Bh. B & Ass. as in ḍāk-ghar>ḍāgghar, or budh-bār >budbār. In these cases there is no possibility of conjunction of consonants ; for, Oṛiyā always tolerates the final vowel. Instead, in Oṛiyā there are many cases of distant assimilation, progressive or regressive. It may be defined as, "In distant assimilation, a phoneme is replaced by another of related acoustic type which occurs elsewhere in the same word" (Language : Bloomfield), For examples. Or. Danārdana for Janārdana, Jujiṣṭhi(ra) for Yudhiṣṭhira cf. also O. Or. (insc.) sanimigra (sandhi-vigraha>sannimigra) cf. Tripathi, EOLS. Mod. Or mahama beside mahaṇa 'one mound' (skt. maṇā, a loan from Semitic).

(K) DISSIMILATION

"When a phoneme or type of phonemes recurs within a form, one of the occurrences is sometimes replaced by by a different sound" (Bloomfield). The principal types of dissimilation are the de-aspiration of two aspirates in the same word, and also de-aspiration of OIA aspirates or of resultant MIA aspirates (cf. pp. 136-137). Further examples, O. Or. arna (anna, 2.8, EOLS), Jagarnātha

Jagannātha, 19.4, EOLS), Bairṣṇaba (vaiṣṇava, 52.7, EOLS), sarjibā (sajj-), biñcaṇā (-cc-<-jj-, Skt. vyajanaka), sanamāna (sammāna), sanamati (sammati), sanamukha (sammukha). The modern tendency of changing -tt- to -st- is also an old feature, viz. mod. Or. aṭhastari '78' (aṣṭasaptati, also in BSAS) cf. B āṭāttar etc., bāstari (SS, RBR p. 2), chastari (SS) etc O. Or. aśvastha (Skt. aśvattha, BGi), ośasta (GBG) for mod. Or. usasta, osta ; Or. anāsta (also in CM ii, p. 81, CM v, p. 37) for Skt. anātha (>*anāttha), annasthā (anyathā, *annatthā), purastama O. Or. purustama (DR) (Skt. puruṣottama, *puruṣostama).

Dissimilation of Vowel is also to be observed in old and modern Oṛiyā, for instances, O. Or. puṣkaraṇi (puṣkariṇī) [16th c. inscr. *vide* OHRJ Vol. VI, No. 4, p. 249]; jhaṭati (also MBh. B 27) for Skt. jhaṭiti ; bhauṇī (bhaginī), kaupuni (kaupīna, MBh N 13) cf. Mod. Or. kaupini, naḷanī (nalinī, SNG p. 19), tāraṇī (tāriṇī, RM 11th chānda), araṣṭi (ariṣṭa, BGi), makunda (mukunda, EOLS, GBG), dharati (dharitrī) etc.

(L) DROPPING OF -r- AND OTHER CONSONANTS

Loss of -r- in some verb-roots was already noticeable in late MIA and proto-Oṛiyā stage ; for examples, Or. malā, kalā, dhailā 'died, did, held' respectively, Mid. B kaila Mai kæla, dhæla etc. which developed from the past participial bases, mṛta, kṛta, dhṛta with pleonastic affix -illa-. Therefore, there is no irregularity in these cases as the question of dropping of -r- is a historical matter. But in many cases, the explanation does not hold good. Tessitori notes certain cases of dropping of an intervocalic -r- in Old Western Rājasthānī and that before -i- only (OWR Grammar ff 30). This is usually the case in Maithilī too (FM p. 145). The following examples are collected from Oṛiyā : O. Or. niabakāśe for nirabakāśe (MBh U 47), thaya (sthira ? if not from Skt. sthita), O. Or. Yudhiṣṭhi for yudhiṣṭhira, pāñcuāti (pañcarātra ?), kolha-malhāra (kahlāra, MBh), māile for mārile (mārāpaya-, MBh etc.), Coll. Or. cāiṭā for cāriṭā (also in Mai), iṭhā phaḷa beside riṭhā 'soap-nut' (ariṣṭa), paiṛa 'tender cocoanut' but compare O. Or. pariṛa (GBG 17th chānda), O. Or. niāhāre for nirāhāre (BSAS), saindhrī (sairindhrī 'hair-dresser in the inner chamber', NC p. 31), pādabinda (pādāravinda, SC p. 20 etc.), also caraṇābinda (caraṇāravinda, CM V p. 27), nirāmiṣa-niaiṭhā (Skt. nirāmṛṣṭa, SC p. 24), śarī (śarīra, RB 3rd ch), stotra (śrotra, Bh i, p. 69), ajāmbara (ajarāmara), ṭhākuāṇi (ṭhākurāṇī) badhiā 'deaf' (vadhira) etc.

The loss of -l- in Or. naṛiā (nārikela ?), and boilā 'said' for 'bolilā (cf. B. bolila) is also peculiar.

The modern tendency of dropping -t- in -str- is to be noted from earlier times, viz., O. Or. śahasra (śastra, MM p. 61), śāhāsra (śāstra, SNG p. 22), basra (vastra, CM iv), sasra (śastra, BGi) etc.

The loss of intervocalic -y- or -v- in some *semitatsama* words is found also in Old Oṛiyā words, viz. āḷa (ālaya, GBG), adhyāna (adhyayana, BGi), bābya (vāyavya, GBG), kṣatri (kṣatriya, GBG), āpyāna (āpyāyana, CM V), adhyā (adhyāya, BGi, AKG), sampradā (sampradāya, EOLS, GBG), prāścitta (prāyaścitta, MP), indri (indriya, BGi), amāsyā for mod. Or. uā:sa (āmāvasyā, GBG, MM p. 26), upāsa cf. B upos (upavāsa, Bh etc.), asara (avasara, L p. 100), hinastā cf. B henastā (hīnāvasthā), tārāḷī (tārāvalī KBS p. 52), romāḷī (romāvalī) etc.

(M) INTRUSION OF CONSONANT

Intrusion of unetymological consonant for the ease of pronunciation is a new phenomenon in Oṛiyā. Though in MIA such tendency is always met with, examples in Oṛiyā do not always conform to the Prākrit forms. Loss of the following consonants is shown below :

-r- : O. Or. bṛṣāḷa (viśāla, RM 1st ch. BGi, RBh etc), bhārjana (bhājana, NC p. 19), śroṇita (śoṇita, NC p. 39), srāhāna (snāna, MP), Arghāsura for Aghāsura (CM i p. 67), mod. Or. śārguṇā beside śāguṇā (śakuna) etc.

For the insertion of -r- in the N.W. languages, *see* Phonology of Panjabi by Jain, ff 176.

-t, d- : O. Or. stotra (śrotra, Bh i, 69), Or. bāndara (vānara), also in B Ass Nep Panj Mar Sgh ; Or. pandara (pañcadaśa pkt. paṇṇarasa Ap. paṇṇaraha) cf. O Mai pandraha Jn paṃdhara Ass pondhara.

-b- : O. Or. brāmbhaṇa (Brāhmaṇa, 18A. 5, EOLS) O. Or. Ajāmbiḷa (Ajāmila CM ii, 81), Or. āmbila (amla pkt. ambila), tambā (tāmra pkt. tamba), āmba (āmra pkt. amba), āmbhe for āme (asmābhiḥ, asme Ap. amhehiṁ), tumbhe for tame (*tuṣmābhiḥ, *tuṣme pkt. tumhe).

-m- : Or. bhāmpa (bāṣpa pkt bappha), pimpuṛi (pipīlikā) etc. *See* also under Spontaneous Nasalisation, pp. 103-104.

In *tatsamas* a plosive is inserted between *anusvāra* and -h-, e.g., siṅgha (siṃha), *see* p. 94.

For the treatment of intrusive -h- or h-glide *see* pp. 50-52

PRONUNCIATION OF FEW OIA CONSONANT CLUSTERS IN OṚIYĀ

A brief account of the pronunciation of certain typical OIA consonantal groups in Oṛiyā is given below :—

Skt. -kṣ- : In modern Oṛiyā the cluster is pronounced as -(k)khy, for examples, Or. sākhyāta (sākṣāt), akkhyaya (akṣaya), nakkhyatra (nakṣatra), durbhikhya (durbhikṣa), dakkhya (dakṣa), bhikkhyā (bhikṣā), bhikkhyuka (bhikṣuka) etc. But if it is followed by a front vowel, it is pronunced simply as -kkh-, viz., dakkhiṇa (dakṣiṇa), sākkhī (sākṣī) etc. In initial syllable it is usually -kh-, but also sometimes -khe-, for instance, khaṇa, kkheṇa (kṣaṇa) etc. Sometimes in the standard colloquy a kind of -ch- pronunciation emerges out, viz., akkhyara, akchara (akṣara), uchuṇi for ehikṣaṇi etc.

In old Oṛiyā the pronunciation was two-fold :

(a) OIA kṣ as -kh- : Old Or. sākhi, dakhiṇa (sākṣī, dakṣiṇa, EOLS p. 124), also ākhi (MBh K24) beside ākṣi (MBh Sv p. 27) ; compare also the rhyme mokṣa/bimukha (MBh M28), kukṣi/dekhi (U20), nirīkṣi/dekhi (U71) akṣi/ dekhi (ChG) etc. *See* under 'Sources of Oṛiyā Consonants'.

(b) OIA kṣ as -ch- : Old Or. sāchi (sākṣī), parichā (parīkṣā) (EOLS) ; compare also the rhyme ākṣi/kichi (MBh M27), kakṣā/icchā (U14), tuccha/ mokṣa (BA), cakṣu/pucchu (BG), mokṣa/micha (JC) etc. *See* also under 'Sources of Oṛiyā Consonants'.

In Bengali OIA -kṣ- is pronounced as -kkh- and -kh- in medial and initial position respectively. In Assamese OIA -kṣ- is usually pronounced as [khja] and medially as -ikkha- or [ikkhja] *vide* FA ff 391 foot note. In Maithilī it is kh, kkh in *tadbhava* words and ch, cch, kch in *semi-tatsama* words (FM pp. 154, 193).

Skt. -jñ- : In modern Oṛiyā, the pronunciation is gy~, ggy~ as in Or. gyā:na (jñāna), agyā:na (ajñāna), pratigyā:, pratagyā: (pratijñā), āgyā:, also āgya (ājñā) etc. compare Maithilī pronunciation of jñ, e.g., gyā:na, geāna (jñāna), sagyāna (sajñāna), O Mai. āgāta (ajñāta, VR) etc. *vide* FM ff 180. In modern as well as Middle Bengali -jñ- is pronounced as gy~, ggy~ like Oṛiyā and Maithilī. Sometimes -gey- as in geyān (gñān) is not unusual (ODBL p. 462). In Bhojpurī -jñ- is pronounced -gy-, -gia- in the initial and medial positions and -gi- in final syllable, e g gyān (jñān) whence colloquially giān, giyān etc. (ODBH p. 53). In Assamese -jñ- is pronounced as -gya, gia- in initial syllables and as -igga- in medial position, viz, gyān, giān,, agiān(jñāna, ajñāna) *vide* FA ff 400.

The -gy~- pronunciation is attested also in old Oṛiyā, for examples, O. Or. āgyā: (ājñā) written āgyā(ṃ), āiṃgā, āigāṃ, āiṃgāṃ etc. (*vide* EOLS) ; sarbagyaṃ (sarvajña), āgyāṅ (ājñā), pratigyāṅ (pratijñā) etc. in MP ; gyāna, gyā:na for jñāna (BA, PBG, RBh) ; āgyā: (PBG), agiāna (ajñāna, RB p. 36), giāna (BC p. 120), abagyā: (avajñā PP p. 2), pratigyā: (PP), premagyā (PP p. 68) for Skt. pratijñā, premajña respectively.

Skt. -kṣm- : It is pronounced in modern Oṛiyā as -khm-, viz., Or. lakhmi (lakṣmī) unlike Bengali lakkhi, and sometimes as -kkhy-, viz., Lakkhyaṇa (Lakṣmaṇa) unlike Bengali lakkhana. In Oṛiyā -m- as the final component of the conjuncts is also heard to be articulated in such example as Or. padma, poduma (padma) in contrast to Bengali paddo cf Ass Rukkinī for Rukmiṇī (*vide* HBL by B. C. Mazumdar, pp. 92, 99 FA ff 391).

In old Oṛiyā inscriptions skt. kṣm is represented as -kh- which perhaps stands for -kkh-, viz., Lakhaṇa (Lakṣmaṇa), lakhi (lakṣmī) (EOLS).

Sks. -nn- : The present Oṛiyā practice of articulation is -rn-. (*See* also under 'Dissimilation'). In old Oṛiyā inscriptions the same pronunciation is attested, for instances, arna (anna), Jagarnātha (Jagannātha) *vide* EOLS.

Skt. -ry- : The modern pronunciation, as noted by Dr. Tripathi, is -rjy- such as in Or. parjyanta (paryanta), surjya (sūrya), kārjya (kārya), but -rj- pronunciation seems to be heard in the non-standard (colloquial) pronunciation of the Cuttack District. Besides, the -rj- pronunciation is always to be heard almost universally in the districts of Puri and Cuttack in the pronunciation of Skt. bhāryā (i.e. bhārjā). In Bengali as well as in Maithilī the same -rj- pronunciation is current (FM p. 156).

In old Oṛiyā, the -j- pronunciation of -y- in -ry- took place possibly through the line of development, r+y>riya, *riyya, rija with an effect of strong spirantisation, the parallel of which tendency is to be noticed in the old Oṛiyā articulation of -hy-. as -hiyya- (*see below*). Of course it might be explained as the normal development of -ry- to -riya-, rija- after anaptyxis beside the *tbh.* -ry- to -j- (<jj) often written as -y- in old Oṛiyā. For instances in Old Oṛiyā, sujra for *surja (sūrya) beside parijante, pariyante (EOLS), also compare pariyante (MBh B18), bhāriyā (bhāryā) (MBh G11, M17) and *tbh.* -y- (=j) in ācāya for ācāja (ācārya), bīye for bije (vijaya) (13th c. inscr. *vide* EOLS 1.2, 10), also compare the rhyme ācarya/nārāja (MBh S1 p. 16).

Skt. -hy- : The modern Oṛiyā pronunciation is -jhy- as in bājhya (vāhya), asajhya (asahya), nyājya (nyāyya) (EOLS p. 125, HBL by B. C. Majumdar, p. 100).

In old Oṛiyā another kind of development of -hy- i.e. -hij- is frequently met with which possibly developed from -hiya-, hiyya, hija- through strong spirantisation; for examples, O. Or. bāhija (vāhya, EOLS), dahiyya (dāhya, MBh Md.), grāhiyya (grāhya, MBh As p. 28, S1, p. 5), guhiyya (guhya, GBG), bāhiyya (vāhya, BP), compare also the rhyme dahiyya/teja (MBh Md p. 9), grāhiyya/ghija (As p. 28).

In Bengali and Assamese -hya- is uttered as -jjha- whereas in Maithilī as -śj- (<jjha) as in bāśja (vāhya), guśja (guhya) etc. (FM p. 156).

Skt. -ṣṇ- : Possibly there were threefold pronunciations in old Oṛiyā (cf. EOLS p. 125), viz., (i) -sn- as in modern Oṛiyā (ii) -hn->-nh- (in the case of inherited words), for examples, O. Or. kānha (RM p. 34), kanhāi (RM p. 44) beside kāhnu (MBh M3), kahnāi (U32), kahnā (S124)<Skt. kṛṣṇa- ; but it might be that the -h- element did not always change the place, for instance, āhānika (āhnika, MBh Ai. p. 6) for mod. Or. ānhika (compare also prahalāda for Skt. prahlāda (MBh B7), āhāllāda (DR) for Skt. āhlāda, mod Or. pralhāda, ālhāda respeetively). In modern Oṛiyā as well as in other Biharī languages -nh- is usual whereas in Bengali and Assamese it has lost its aspiration. (iii) *sts.* -sṭ- in modern and old Oṛiyā, for instance mod. Or. krusṭā, compare O. Or. kṛṣṭa 'dark' beside kṛṣṭa(ṃ), krīsta(ṃ) for Skt. kṛṣṇa (EOLS).

Skt. -ts-, -ps- : The modern pronunciation of -ts- is usually -śc- inherited from the habit of Māgadhī Prākrit, for examples, Or. uścaba (utsava), kuścita (kutsita) etc. In old Oṛiyā the pronunciation of -ts- seems to be as -cch- as in modern Bengali; for examples O. Or. jyochanā (jyotsnā, BGP p. 46) etc. *See* also under 'The Sources of Oṛiyā Consonants'. Compare also the rhyme : bibhatsa/samakaccha (MBh As p. 30), bibatsa/nīca (MBh D38), batsi/achi (MBh D40), śrībatsi/byāpichi (BGi), pucchi/batsi (BGi), pucchi/batsi (BGi), kichi/batsi (BSAS) etc.

Similarly the habit of pronuncing -ps- as -ch- is also old, for examples, O. Or. apakṣarī (BA), apacharī (PBG), apacharā (RB p. 31) for Skt. apsarī (*See* also under 'The Sources of Oṛiyā Consonants').

Skt. cluster of a consonant+y : Usually -y- is pronunced in the followieg ways in Oṛiyā :

(a) In medial and final syllables as -ia-, for examples, mod. Or. kanniā (Skt. kanyā), anniasthā (anyathā) etc. In old Oṛiyā the same mode of pronunciation is observed, viz., triambaka (MBh G) beside triambika (MBh D) for Skt. tryambaka ; niunatā (nyūnatā, MBh, Md), atianta (atyanta MBh B), biartha (vyartha, MBh B), kaniā (kanyā, MBh U) etc.

(b) In initial and final syllables sometimes as -i-, viz., O. Or. bhitara , (abhyantara), bitarake (vyatireka), saīni (sainya), Agasti (Agastya) niti (nitya) also in EOLS etc. (*See* also under 'The Sources of Oṛiyā Vowels').

(c) Sometimes in initial syllable as -e-, viz., bebhāra (vyavahāra), bebāsthā (vyavasthā), besta (vyasta) etc.

But exceptions are to be found in the groups, dy, yy, for examples, mod. Or. ujjoga (udyoga) cp. B ujjog; śajjyā (śayyā) cp. B śa'jjā. In modern Bengali the cluster with -y- is usually pronounced with doubling of the

preceding consonant (cp. B sa'tta' for Skt. satya, a'nnathā for Skt. anyathā etc.) but in initial syllable, -y- gives rise to æ viz., bæbasthā (vyavasthā), bæsta (vyasta) etc. Assamese shows doubling of consonant with epenthesis, viz., An bāikka (vākya), āikkhān (ākhyāna) *vide* FA ff 391.

Skt. cluster of a consonant+v : The usual pronunciation of -v- is -u- in medial syllables, viz., O. Or. duādaśī (dvādaśī, MBh Ai. 6), duāra (dvāra, EOLS), suāda (svāda, MBh B. 10). In modern Oṛiyā the same habit is apparent, viz., suāgata (svāgata), suāda (svāda) etc. The vocalisation of -v- to -u- or -o- is also to be noticed in old and modern Oṛiyā, viz., pramesura (parameśvara, EOLS), turita (tvarita, tvarant, MBh U40); Mod. Or. rājuti (rājatva), sopna, supna suapna (svapna). soê (svayam), suāmi, soāmi (svāmī), bisuābasu (viśvāvasu) etc. *See* also under 'The Sources of Oṛiyā Vowels'). But exceptions are to be found in Or. jibbhā (jihvā), annesana (anveṣaṇa) etc. In Bengali the pronunciation of -v- in the initial cluster is totally silent (cp. B dādaśa for Skt. dvādaśa etc.) while in the medial and final syllable the consonant preceding -v- is geminated, the -v- being totally ignored (cp. B rājatta for Skt. rājatva, biddān for Skt. vidvān etc.) ; Compare Ass. pakka (pakva) *vide* FA ff 391.

Skt. ṃh : The pronunciation of Skt. -ṃh- as -ṅgh- is widespread in the Māgadhan languages and it has been discussed already (*See* p. 94)

Skt. -cch- : The peculiar pronunciation of Skt. -cch- as -tt- is worth mentioning, for instance, Skt. ucchiṣṭa is to be pronunced in modern Oṛiyā as uttiṣṭha but the habit seems to be old [cf. Or. utiṣṭha (BA, BGi)].

Skt. -tt- : This cluster is dissimilated to -st- in modern Oṛiyā but the practice seems to be old. For a detailed treatment *see* under 'Dissimilation of Consonants', p. 141.

CHAPTER XIII

SOURCES OF ORIYA CONSONANTS

THE GUTTURALS

(A) Initial Oṛiyā -k- represents :

(i) OIA -k- : Or kāma (karma pk kamma-), kāna (karṇa pk kaṇṇa), kāu, kuā (kāka-), koili (kokila pk koila, *koilla), kāli (kalyam, kalye pk kallaṁ, kalhiṁ), kādua (kardama), kaṭuāḷa (koṣṭhapāla) etc.

(ii) OIA -kṛ- : Or. kacheri, kachiri also kaceri, kaciri (*kṛtya-gṛha pk *kaccaghara), Or. kalā 'done' (kṛta pk kaa,-illa), kāṅhu (kṛṣṇa pk kaṇha), kāṛhibā (kṛṣ, karṣati pk kaḍḍhai), keruāḷa (kṛpīṭapāla MBh Sl. p. 15) cp. OB keṛuāla Ass. keruwāli etc.

(iii) OIA -kr- : Or. kāndhā (krand-), koṛa, koḷa (kroḍa pk kola), koha 'sobbing' (krodha pk koha), kiṇibā (krīṇa- pk kiṇa-), kośa '2 miles' (krośa pk kosa) etc.

(iv) OIA -sk- : Or. kāndha (skandha pk khandha) O.Or kandha (UBh. p. 61) cp OB. Ass. kāndha.

(v) OIA -kv- : Or. kaiā 'hard boiled', kai 'vomitting' cf. B kāi 'paste', Ass kah Mai Bh kāṛhā (kvātha pkt kaḍhiā) keûṭhi 'where' (kva-stha, cf Bloch LM., kutra) cf OMar koṭhe 'where' Jn koṭhuni 'from what place'

(B) Intervocal and Final Oṛiyā -k- represents :

(i) OIA -k- =MIA -kk- : Or. eka (eka, aikya pk ekka), Or. ekoiśa, ekoiśi (ekaviṁśati), pāika [padāti-, padika pk pāikka (J.Bl) lw. Ir. cf Bl. LM p105 ODBL pp. 194-195], thakā 'to be tired' (pk thakka 'tired' thakkaï 'halts', poss. extension of -akka of skt sthā- 'stand' Pr. *sthāti Pā thāti pk thāi, ṭhāi ND p 295), mukuḷā (mukta pk mukka with extn. of ra, ḍa ; *mukna ND p510 but S. Sen suggests *muk-va CGP p 26)

(ii) OIA kk MIA kk : Or. hakarā (skt. lex. hakkayati, hakkāraḥ, pk hakkai, hakkārei) ṭhākura (skt lex. ṭhakkura pk ṭhakkura der. Turkish tigir) Or. chiṅka but to Turner chikkā ? 'sneeze' (chikkā Deś. chikkaṁ) cf Jn śiṁka, Bh. chik, Or. cikaṇa 'bright' (cikkaṇa), Or. buku 'chest' (vṛkka-) of B. An buk.

(iii) OIA ky MIA -kk- : Or. śikā 'a sling of rope' (śikyam pk sikkaya cf. also Bl. Ved. skt. śikya-), Or. māṇika (māṇikya pk māṇikka)

(iv) OIA -kr- MIA kk : cakuā (cakravāka pk cakkavāa), caka (cakra pk cakka), baṅkā (vakra pk vaṅka, vakka of also vaṅku- 'going

crookedly'), bokaṭe 'bad' (vakra- avasthā ? cf ODBH p.87) cf. OMar vokhaṭe B. bakāṭe (but to Dr. chatterji √vah, -akka), pakāibā (cf. prakrāmaya-) Or. nāka 'nose' (nakra)

(v) OIA -kv- MIA -kk- : Or. pakā (pakva pk pakka, pikka), mukuḷā 'free' (*muk-va, to S. Sen, CGP p 26)

(vi) OIA -ṅk- MIA ṅk, kk : Or. kāṅkaṇa (kaṅkana pk kaṅkanaṁ), āṅkuri (aṅkura-ika), 'sprout', āṅka (aṅka), pāliṅki, palaṅka (paryaṅka, palyaṅka pk pallaṅka), ḍhāṅkuṇī (pk dhakkiṇi 'lid, cover' Deś. ḍhaṁkiṇī), āṅkuśa, āṅkuśī, āṅkuṛī' 'iron hook' (aṅkuśa pk aṅkusa)

(vii) OIA -ṅkh- : Or. śiṅkuḷi 'chains,' also śāṅkoḷi (śṛṅkhalā, pk saṅkhalā siṅkhalā), Or. cikiḷa 'mud' cf. Or. cahalā 'muddy' (ciṅkhala, cikhalla pk. cikhalla, cikhilla *vide* CDIA pp. 259-260) cf O.B. cikhila

(viii) OIA -tk- MIA kk : Or. camakibā (pk camakkei 'startles' cf. skt. camatkāra-), ukāḷibā 'to vomit' (utkālaya- 'to drive out'), phuṅkibā 'to blow' (cf. skt phūtkaroti pk phukkaï but Hoernlo suggests sphut or phut-kṛ), cukāibā 'to settle' (cyut-kṛ ? cf ODBL p. 456 ; Turner suggests *cukka 'be finished with, be forgotten' cf. skt cyuta- 'fallen', cyavate 'fails' Dhātp. cukk 'is hurt' pk cukkaï), Or. ukuṇī 'louse' (utkuṇa) cf. Ass. okaṇī B ukun.

(ix) OIA rk MIA kk : Or. māṅkaṛa (markaṭa pk makkaḍa Ap makkala), śākara (śarkarā pk sakkara ; J. Przyluski considers that it is a loan fr. Mon-khmer cf Gk. sakkhari), Or. kaṅkaṛā (karkaṭa pk kakkaḍa), tākuṛi 'iron-pot in spinning wheel' (tarku- pk takku), Or. kākuṛi 'cucumber,' (karkaṭa)

(x) OIA -lk- MIA kk : Or. śakaḷa 'skin' (śalkala), bakaḷa 'bark' (valkala pk vakkala), uka 'torch, flash of fire, meteor', ukiā 'Sun's rays' (ulkā pk ukkā cf CDIA p. 111) cp. Mai ūk 'torch' Ass ukā 'burnt straw carried about by the wind.'

(xi) OIA ṣk MIA kk : Or. caüka 'a square' (catuṣka pk caükka), nikālibā 'to expel' (*niṣ-kālaya cf. niṣkālya pk ṇikkālei), nika 'good' (niṣkṛta, niṣkṛti 'prepared, pure' pk ṇikka), nikāsa (niṣkāsa-), nikamā (niṣkarmā).

(xii) OIA kṣ MIA kkha : Or. bhuk (bubhukṣā pk bubhukkhā, buhukkhā Deś. bhukkhā), bhika 'alms' (bhikṣā pk bhikkhā), bhikārī 'beggar' (bhikṣācara pā bhikkhācāriyā pk bhikkāyara, bhicchara)

(xiii) OIA kl MIA kk : Or. suükā, sukā, siukā 'four-anna coin' cf B. siki (śuklikā pk sukkiā to S. Sen Bh. I p.179 : but to Platts Skt. sapādaka cf Hindī Dictionary. Dr. Chatterjee has suggested the Perso-Arabic sikkah 'coin' in connection with retention of -k- & -i- cf ODBL pp. 194-195, 1076, 399)

(xiv) OIA kn MIA kk : Or. mukuḷā 'free' [*mukna, mukta pk mukka *vide* Guj. Phon. by Turner, ff 76(1), LM ff 94], *see supra.*

(A) Initial Oriyā -kh- represents :

(i) OIA kh MIA kh : Or. khaïra 'catechu' (khadira pk khaïra), khajuri (kharjūra- also lex. kharju- pk khajjūra), khaṇati, -tā (khanitram pk khaṇitta), khaṭa 'bedstead' (khaṭvā pk khaṭṭā), khajā 'sweetmeat' (khādyam, khādyakam pk khajjaṁ, khajjaya)

(ii) OIA sk MIA kh : khambha, 'pillar' (skambha pk khambha), khambhāra (skambhāgāra pk khambhāā·a)

(iii) OIA kṣ MIA kh : Or. kheta (kṣetram pk khetta), khud *sts.* khudara (kṣudra pk khudda, khuḍḍa), khura 'razor' (kṣura pk khura), khopā beside khoṣā 'done up hair-knot of a woman' (RV. kṣumpra 'toadstool, mushroom, bush' Skt. kṣup 'bush' MIA khumpa *vide* VRC p. lxi, ND p. 129 ODBL pp. 329, 510 CDIA pp. 193, 194) cp. OB khompā OMai ṣompā (khompā), B. Ass khôpā, ; Or. khep 'load', khepā 'jump' (kṣepya 'to be thrown'), khāra 'potash' (kṣāra- pk khāra), khaṇa (kṣaṇa pk khaṇa), Or. khuā 'armpit' (also in ChG) <kakṣa ?

(iv) OIA kr ? kṣv ? : Or. kheḷā [krīḍā + kṣveliḥ *vide* ND p. 127, skt. *skrīd, krīḍ, or <*krizd cf. O. Norse hrista 'shaking' cf. Burrow : Sanskrit Language, p. 93 ; but -kr- probably through pre-Aryan dialectal *xr, pā. khiḍḍā late skt. ākhoṭika <ākrīḍin (Pāṇini) cf. S. Sen : CGP p. 27] cp. O. Or. khoṛa (GBG) for Mod. Or. kheḷa

(v) OIA k by aspiration : Or. khila beside kīḷā 'stake', kīḷibā 'to bolt' (kīla-, kīlaka- pk kīla), khaparā 'tile' (karpara pk khappara) etc.

(B) Intervocal and Final Oriyā -kh- represents :

(i) OIA khy MIA kkh : Or. bakhāṇibā 'to narrate' (cf vyākhyāna- pk vakkhāṇa)

(ii) OIA ṁk(r) MIA ṁka : Or. saṁkha (saṁkrama- pk saṁkama but to Bl. skt.. śaṅku 'post' cf. OB sāṅkama

(iii) OIA ṅkh MIA ṁkh : Or. saṁkha 'a conch' (śaṅkha)

(iv) OIA kṣ MIA kkh : Or. ākhi (akṣi pk akkhi), likha 'egg of a louse' (likṣā) ākhu (ikṣu pk ikkhu), ākhaṛā 'wrestling ground' (akṣavāṭa pā. akkhavāṭo Skt. lex. akṣapāṭa-, a sanskritised form of pkt. ND p. 4), kākha 'armpit' (kakṣa pk kakkha), pekhibā (prekṣa- pk pekkhaï), pakhāḷibā 'to wash' (prakṣālaya- pk pakkhāladi), pākha 'nearness' (pakṣa pk pakkha), mākhibā (mrakṣati pk makkhei), rakhuāḷa (rakṣapāla- pk rakkhavāla), rakhibā (cf rakṣati pk rakkhaï), lākha (lakṣa pk lakkha) O. Or. dakhiṇa (dakṣiṇa), sākhi (sākṣī) *vide* EOLS

(v) OIA kṣy MIA kkh : dekhibā (drakṣya- pk dekkhaï)

(vi) OIA kṣṇ MIA kkh : Or. tikha 'peevish', 'fretful' (tīkṣṇa- pk tikkha), cf O. Or. tīkha 'sharp' (RBR p. 2)

(vii) OIA kṣm MIA kkh : Or. pākhuṛā 'petal' (pakṣma-) cf OB pākhuṛī Mar pākhali O. Or. Lakhī (Lakṣmī) (EOLS) Lakhaṇa (Lakṣmaṇa) (EOLS)

(viii) OIA tk MIA kk : Or. mākhunā 'beardless man' (matkuṇa-) cf Ass. makhanā

(ix) OIA tkh MIA kkh : Or. okhāṛe (utkhāyate 'uproots' utkhāta *vide* ODBL p. 460 ; but utkarṣati pk ukkaḍḍhaï to Bloch ff96 LM, to Turner ut-*skṛta cf. skt utkaroti 'exterpates' MIA *ukkhiḍa, ukkhaḍa pk ukkhalia ND p. 44)

(x) OIA ṣk, sk MIA kkh : Or. pokhiri, pokhuri (also in inscr.), pokharī (puṣkara, pauṣkara- pk pokkhara), śukhilā, śukhā (śuṣka- pk sukkha) O. Or. (inscr.) bākhara (bhāskara)

(xi) OIA ḥkh MIA kkh : Or. dukha (duḥkham pk dukkha)

(xii) OIA tkṣ Ap. kkh : Or. takṣaṇa=takhyaṇa (*sts.*) ? (tat+kṣaṇa Ap takkhaṇa cf ODBL p. 317 Bh. I p. 134)

(xiii) OIA -ṣ- in *sts.* words. O. Or. brikha-bhānu (vṛṣa-bhānu) (PBG RBR pp. 20, 28); compare Bh. B. Mai. rokh. Ass rukhārī 'angry' (cf. also FA ff 392) ; O. Or. bhākhā (bhāṣā UBh 34. PP. 2 RM 16th ch) cf. also modern usage "eka lekhā sahasre bhākhā" ; O. Or. purukhā (puruṣa-, Bh. ii 66)

(A) Initial Oṛiyā -g- represents :

(i) OIA g MIA g : Or. galā 'went' (gata- pk gaa), gadha (gardabha- pk gaddaha), gāta (garta), gāī (gāvī pk gāvī), gosāî (gosvāmī pk gosāviā f.), gaṛhe (gaṭhati), gaüṛa (gopa-la), gacha (*gaśca, gaccha), guā (guvāka), guhāri 'an appeal' (goha 'shout' kārikā), goṭha (goṣṭha), gochāe (guccha, *gṛpsa), goru (go-rūpa) etc.

(ii) OIA gr/ṛ MIA g : Or. ganṭhi (granthi- pk ganṭhi), gāã:, gã: (grāma pk gāma), gunthibā 'to sting together', gānthibā 'to lay in rows' (cf granthayati pk ganṭhaī)

(iii) OIA k MIA g : Or. gendu 'toy' ? (kanduka- lex genduka-, genḍu)

(B) Intervocal and Final Oṛiyā *-g- represents* :

(i) OIA gn MIA gg : Or. laṅgalā 'naked', nāgā (nagna- pk ṇagga), lāgibā (cf lagna-), bhāga 'share' (bhagna- pk bhagga), Or. bilaga 'detached' (vilagna-)

(ii) OIA gy MIA gg : Or. suhāga, suāga, (saubhāgya- pk sohagga) cf Ass. suwāg B. sohāg ; jogāibā 'to supply' (yogya- pk jogga), lāgibā (cf lagyati pk laggai)

(iii) OIA gr MIA gg : Or. āga (agre pk agge), pāga, paghā (pragraha- pk- paggaha), jagibā (cf jāgarti- pk jaggaī)

(iv) OIA ṅg MIA ṅg : The OIA -ṅg- results into an assimilated -ṅ- in intervocal and final positions in all the branches of the eastern group except Oṛiyā which perhaps represents the proto-eastern characteristics. In Oṛiyā, Old Bengali, early Middle Bengali and even in some parts of modern East Bengal dialects (ODBL p. 363), the stop sound is preserved intervocally. And this preservation is expected to occur in all conditions, the linguistic trend being modified in the subsequent stage in the following manner : ṅg> ṅṅ> ṅ (for further treatment see pp. 82-83, 88) for examples,- Or. āṅgaṇa beside agaṇā (aṅgana) OB āṅgana Mai āṅana Bh āṅana written ā:gana Ass B āṅinā ; also Or. āṅguṭhi (aṅguṣṭhika), āṅguḷi (aṅguli), āṅga (aṅga), baṅgaḷā (vaṅga-pāla), śiṅga (śṛṅga), leṅguṭi (*liṅgapaṭṭa), lāṅguḷa (lāṅgula) etc.

(v) OIA dg MIA gg : Or. māgura (madgura), 'a kind of fish', mugura (mudgara- pk muggara, moggara), muṁga, muga (mudga- pk muga), 'a particular kind of lentil', ugāra (udgāra)

(vi) OIA rg MIA gg : Or. māgibā (mārgaya- pk maggaï), gagarā 'earthenware pot' (gargarī pk gaggarī), ugāḷibā beside āguḷibā 'to obstruct' (argala-) etc.

(vii) OIA rgh MIA gg : Or. māhāṅgā (mahārgha- pk mahagga)

(viii) OIA lg MIA gg : Or. phaguṇa (phālguna pk phagguṇa), phagu (phalgu pk phaggu) 'red powder'; bāga (valgā pk vagga) etc.

(ix) OIA -k- MIA -g- : Or. ogāra (okādaśa pk eggāraha), śāguṇā, sārguṇā (śakuna), śāga (śāka), baga (vaka), śagaṛa (śakaṭa)

The voiced form is also found in old Or. ātaṅga (MBh B36) [ātaṅka] dig-bidiga (K.46) Mod. Or. gāra 'a line' (ākāra ?) Mod. Or. bigāṛiba 'to spoil' (vikaṭa ? cf ODBL ; but to Turner vighaṭati+vigraha ND p 439) cf B bigṛā beside beyāṛā Ass bigari, bigaṛhi 'changed in form' Aw bigār, bigāreu etc.

(x) OIA ḍg MIA gg : Or. khagaṛā 'reed' (khaḍga pā. pkt. khagga), B. khāg, khāgṛā (CDIA p. 198), also Ass. khāgari 'reed'

(xi) OIA jñ *sts.* -g- : O. Or. gyāna (jñāna) cf Mai geāna, sagyāna (sajñāna) OMai āgāta (ajñāta) *vide* VRC; B gy∼, ggy∼ sometimes in MB (ODBL p. 462) ; Bh gyān, giyān, sagyān, sagiān ; O. Or. āigāṃ, āiṃgā, āiṁgāṁ, āgyāṁ (Puri & Bh. insc. 16th c.) cf Mid. Aw āgyā OMai āṅgā-pāla for āgyā: (ājñā-pāla) Bh aïgā B ā:ggā, ā:gge ;

(A) Initial Oṛiyā -gh- represents :

(i) OIA gh MIA gh : Or. ghālibā 'to throw' (*ghalyati cf gharati, jigharti Ap ghallaï ND p. 155 Bl. 327), ghoṛā (ghoṭaka pk ghoḍaa), ghaṛi (ghaṭikā pk ghaḍiā) 'clock', ghāma (gharma pk ghamma),

ghāa (ghāta pk ghāa), ghoribā (*ghorayati skt. lex. gholayati cf ghur-ṇa-ti pk gholei)

(ii) OIA ghṛ MIA gh : Or. ghia (ghṛta pk ghiā), ghiṇa (ghṛṇā pk ghiṇā), ghosāṛibā 'to rub' (*ghṛṣati pk ghasaï, the other stem being gharṣati, ghṛṣyate), ghoṭibā 'to stir up' (der. of ghṛṣṭa-)

(iii) OIA ghr MIA gh : Or. ghaṇā 'oil press machine' (ghrāṇikā cf skt ghraṇaka cf ODBL p. 463 ; but Tur. connects to skt ghātanam, ghātanī pk ghāyaṇa, ghāṇa)

(iv) OIA g by metathesis of the following -h- : Or. ghara (gṛha, *garha) ghenibā 'to take' (gṛhṇa- pk genhaï), Or. ghitibā 'to take' O. Or. gheti (inscr. EOLS) (der. of gṛh)

(B) Intervocal and Final Oṛiyā -gh- represents :

(i) OIA ghr MIA ggh : Or. bāgha (vyāghra- pk vaggha)

(ii) OIA rgh MIA ggh : Or. dighi (dīrghikā pk digghiā), ghāguri 'small bell' (gharghari pk ghagghara)

(iii) OIA dgh MIA ggh : Or. oghālibā 'to uncover', (udghāṭaya- pk ugghāḍaï)

(iv) OIA gr MIA gg> g-h by transposition : Or. bighā 'measure of land' (vigraha pk viggha), āghû, āgahû (agra-, agre pk aggo) cf Nep. āghû, aghi ; Or. paghā 'a rope for tying the cattle (pragraha), nighā 'care, look' (nigraha)

(v) OIA ṅgh MIA ṅgh : Or. siṅg(h)āṇi (śṛṅghāṇikā lex. śiṅghāna pk siṅghāṇa), jaṅgha (jaṅghā pk jaṅghā), suṅghibā 'to smell' (skt. dhātp. śiṅghati perh. <śṛṅghati pā siṅghati Deś. suṅghia 'smelt' (*see also* pp.82-83, 89)

(vi) some onomatopoetic formations : Or. ghaṛaghaṛa 'rattling', ghuṅghura 'string of bells' etc.

For the interchange between the Gutturals and Palatals, *see* pp. 153-54.

THE AFFRICATES

(A) Initial Oṛiyā -c- represents :

(i) Or. caüka (catuṣka pk caükka), cakā (cakra- pk cakka), cakuā (cakravāka- pk cakkavāa), camakibā beside cihîkibā, cehêḷā 'startling' (cf camatkāra- pk camakkai), coṛa (cauṛa-), cāhîbā 'to look' (cakṣ-), cabiśa O. Or. cābiśa (MBh. U. 89), (caturviṁśati), caüṭha (caturtha), caüda (caturdaśa), caüṣaṭhi (catuḥṣaṣṭhi), cāḷiśa (catvāriṁśat), cama (carma-), citā 'painted' (citra), cānduā (candrātapa), cānda (candra), cāri (*catāri for catvāri), cobāibā (carv-), caā̃ra (camara) etc.

(ii) OIA cy MIA c : Or. cuāibā (cf cyavate pk caai cf also Skt. cyotati pk cua, cui), cukāibā 'to settle' (cyut-kṛ. ODBL p. 456)

(B) Medial and Final Oṛiyā -c- represents :

(i) OIA c, cc MIA c (?), cc, *ñc cf ODBL p. 470 : Or. uñcā (ucca pk ucca), khecc̣ṛi, khecc..ṛī 'a mixture of rice and pulse' (Skt khiccā Deś. khicca cf Skt kṛsara *vide* ODBL p. 438), nica (*nicca cf Skt nīca pk ṇīa or, *nīcya pk ṇicca influenced by ucca-), but compare O.Or. nuccā (inscr. EOLS) neca CM iv. 65), neñca (Bh. ii. 78) (Skt. nyañc) ucāṭaṇa (late skt uccāṭa 'ruining'), Or. marica 'black pepper' (marica- MIA *maricca pk maria, miria), kāca (pk kacca lw. skt kāca), cuci (cf cūcuka-), caṛacaṛa 'crackling', caṛaka 'thunderbolt', caṛakibā 'to crackle' (cf caṭacaṭati, caṭakṛti pk caḍakka), kucéibā 'to cut to pieces' (cf kucati, kuñcati pk kuñci 'bent', kuṭṭ), a :āra (ācāra)

(ii) OIA ñc MIA ñc : Or. āñcaḷa (añcala pk añcala), c.āñca 'mould' (late skt. sañcaka- pk saṁcaa), chiñcā (cf siñca- pk siñcaï), mañcā '.aised seat' (mañca pk mañca), bañcibā 'to escape' bāā:ceibā 'to deceive' (vañcati 'moves to and fro', 'to cheat' ; vañcayati 'moves away from, escapes pk vañcaï, 'goes' cf skt vacyate pk vaccaï 'goes' *vide* ND p. 429. But to S. Sen vrajyate pk vaccaï, *vañcaï cf. Bh. I. p. 181). Also Or. pāñca (pañca), kāñcuḷi (skt kañcuka-, kañculikā), kuñci (kuñcikā), sañcibā 'to collect' (cf sañcinoti), paciśa (pañcaviṁśati) etc. (*see* also p. 86)

(iii) OIA cy MIA cc : Or. rucibā (*rucyate cf skt rocate pk ruccaï), pācibā ''to ripen' (pacyate pk paccai)

(iv) OIA ty MIA cc : Or. nāca (nṛtya- pk :acca), sacā (satya pk sacca), kacerī beside kacheri (*kṛtya-gṛha), pahuñcibā 'to reach' (*prabhutya denom. fr. skt prabhu pk pahuccaï 'is powerful, reaches' or <IE*pro-bheu-sko *vide* ODBL p. 344 or prabhutvati cf. Pischel : GK ff299), acābuā 'terror-stricken', O.Or. acābhuā 'astonished' (DR) (skt. atyadbhuta pk accabbhua)

(v) OIA sk MIA cch : Or. ācambit 'astonished' (skabhnāti, āskabhnāti 'fixes firmly' IE *squembh : *sqṃbh cf pā chambeti 'is stiff with fear' cf ND 7) Or. chuñcā, cucundrā (chucchundara- 'musk rat')

(vi) OIA rc MIA cc : Or. āñca (arcis), kuñci (kurci-)

(vii) The following words of obscure origin : Or. loccā 'lewd', kacuri 'a kind of pastry', kackac 'restlessness', kacā 'unripe', picikāri 'syringe' etc.

(viii) By palatalisation : Or. cirāitā, cirotā (kirātatikta skt lex. cirātikta cf ND 177 ;> cilāitta, cilāa-titta cf ODBL p. 471 also Pischel GK ff 230) cf. OB ciraitā, cirāyitā (Sarvānanda) B ciratā Ass ciratā also in H. P. Nep. Or. lucibā 'to hide' (pk lukkai Deś. likkai,

lhikkai cf ND p. 558 ; Or. form from *lucyate <*lukyato ?) compare B lukāna Ass luk- also forms with -k- in G. Nep H. P. L. S. M. ; Or. cāuḷa 'uncooked rice' cf B cāul, cāl Ass cāul Bi. cāur is not possibly a case of palatalisation of taṇḍula (cf. ODBL p. 471) if not from *cāmala, also a doubtful connection ; It is possibly a Non-Aryan word (cf ND p. 172 ODBL 471) while OB tāula, tā:ṛula is a separate development of skt taṇḍula pk taṇḍula (*see* also CDIA p. 257 under *cāmala and p. 320 under taṇḍula)

The change of gutturals in the place of articulation is rather unusual in IA and where it at all occurs, it occurs as a conditional change (cf Pischel ff230). In Northern Gujrātī k, kh, g before or after i, e, y become c, ch, j etc. (Guj. Phon. ff41) compare : Guj. dicro : dikro, 'son', chetar : khetar 'field' etc. It might be the case with Oṛiyā cf. lucibā (*lukya-), cirāitā, ciretā (kirātatikta) as opposed to cāuḷa which seems to have no ultimate connection with skt taṇḍula, and perhaps *cāmala (CDIA pp. 257, 320)

The same linguistic phenomenon is seen in the reversion of dentals into palatals (Pischel ff216) cf skt takṣati pā. tacchati pk tacchaï, takkhaï 'builds' and the initial -t- is retained in Nep. K. P. L. G M and H (ND p. 278) whereas Bengali, Or. Ass Bh show cā:c(h)e, cāñchibā, cā:ch respectively.

In Modern Oṛiyā, there is a peculiar development of t > c without any associative influence of palatal vowels, for examples, Or. cajibā beside cadibā 'to threaten' (skt tarja-) (*vide* OBI by B. Misra). In Matihilī, we get this type of change cf Mai chuccha 'empty' (FM p. 154) which is derived from MIA cuccha, chuccha (tuccha) (Pischel ff 216). It might be a case of distant assimilation of dental with a following palatal stop. (For the development of d > j, dh > jh *see* pp. 158, 159, 160.)

In the combination of skt t+s, Oṛiyā shows a *sts*, development of -śc- (also -st- which is simply a metathesis) in contrast to Modern standard colloquial Bengali -cch- viz., skt utsava : Or. uścaba, ustaba cf B mocchab (mahotsava) —a *sts*. development ; Or, bachara B bacchar (vatsara) etc. which shows the earlier pronunciation with a Prakrit tradition (cf ODBL p.471) ; compare B. Ass kucchā 'scandal', kucchit 'ugly' Or. kuścita (kutsā, kutsit) etc. *see* also under ts > ch in pp. 145, 156.

(ix) Or. c by unvoicing -j- : Or. becibā 'to sell' B bece 'sells' <beccaï <*bejjaï=vyayati ? (ODBL p. 471) cf SKK bici 'selling' Ass√bec, 'becā' 'price' Bh bêc (pk beccaï but to Turner the connection is doubtful with skt. vyaya ND p. 455); Or. biñcā 'fanning' O. Or. biñcaṇā 'fan' (Puri inscr. 16th c.) SKK bici 'fanning' Ass√bic 'to fan', bicanī 'a fan' (vyajana-) Or. pāñcaṇa, pācaṇa, 'a cowherd's stick' (prājana) cp Ass. pācan B. pā:can.

(A) Initial Oṛiyā -ch- represents :

(i) OIA ch MIA ch : O. Or. chati (Puri insc. 16th c.) Mod. Or. chatā (chatrakam pā chattakaṁ), chāla (challi- <*chad-li pk challi), cheḷi (chagala Deś. chelao), O. Or. chāoṇī Or. chāuṇī (chādana pk chāyaṇiā), chāi (chāyā) chāṛibā (chardaya-), chikka (skt chikkā) 'sneeze', choṇi (chedanikā), chāibā 'to thatch' (chādaya-), chapara (chattvara)

(ii) OIA kṣ MIA ch : Or. chāra-khāra 'destruction' (kṣāra- pk chāra), churi (kṣura- pk chura), chāṇibā 'to sift' (*kṣāṇayati cf kṣaṇoti pk chāṇa, chāṇaṇa), choparā *sts.* (kṣobha ?) 'funny', chepa (kṣepa) 'spittle', chuibā 'to touch' (*kṣubhita pk chovia to Sen, but to Bloch chupati pk chivaï, chihaï, skt chupati pk chuvai contaminated with kṣipati pk chivaï cf ODBL p. 472 ff262), chaa, cha (*kṣaṭ, *kṣvaṭ cf skt ṣaṭ ND p. 189 also *kṣvakṣ *vide* Guj. Phon. ff89 (i) Ap chaha), also the numerals chayānabe O. Or. chayāṇoi '96' (ṣaṭ-navati), chapana '56' (ṣaṭ-pañcāśat), chatiśa '36' (ṣaṭ-triṁśat) etc. also chaṭāṅki (*ṣaṭ-ṭaṅka), chakā (ṣaṭka- pk chakkaṁ) O. Or. *sts.* china (kṣīṇa, Kaḷaśā), charibā (kṣar- PBG), chatri (kṣatriya, RB. 46), chiti (kṣiti RBR. p.1.), chata (kṣata RBR. 46) cp. also kṣidra for chidra (BSAS) Mod. Or. chaara (kṣaura)

(iii) OIA ś MIA s, ch : Or. chuā (śāva-, pk chāva), chatu (śaktu), chilkā 'crust' (poss. connected with Skt śalkala cf also challi- pk chollaï 'skins'), chepa 'spittle' (śleṣmā pk seppha, sepha, sembhā, simbha, silimha), chañcoibā, chaãcibā (cf śaucika-, śuci), cheribā 'to have loose motions', chera and cheruā 'coward' (cf śakam śakṛt, chaganam 'dung' pā. chakaṇam), cheta beside chau 'leprosy', (śveta) chaṇa (śana) 'straw, hay' (also MBh. U. 3), Or. chela (śela, also MBh B. 91)

(iv) OIA s MIA s : Or. chiñcibā, chiñcā-biñchā (cf siñcati pk siñcaï), chāñca 'mould' (late skt. sañcaka- 'mould'), chañcibā, sañcibā (sañcinoti 'collects' pk saṁcinaï, saṁcaï), chuta, chutaka, chutakiā 'impurity caused by child-birth' (suta-ka but to Turner *chupti pk chutti cf Skt. chupati 'touches'), chatianā (saptaparṇa, also chatraparṇa- pk-sattapaṇṇa), chuñcī (sūcī), *sts.* chandi (sandhi, also MBh. K.27) cp. B chātim OB cātipaṇa (Sarvānanda) mid. B chātiaṇa, chāñiaṇa (ODBL p. 471) Mai chatibana'; chāẽ 'self', (svena, svayam) *sts.* chatara (satra) cf B dān-chattar ; chāmu, chāmure, chāmuku 'in front' cf O. Or. samehā 'a representative' (BA) for mod. Or. chāmuā (sammukha) cf Mid. B chāmu (ODBL p. 472) Ass chāmu, camu 'straight'; colloq. Or. chaccā (satya) cf B chā:cā.

The development is old in the growth of the New Indian languages. The Oṛiyā Poet Baḷarāmadāsa (15th c. AD) and others employed the orthography -ch- for -sv- e.g. chachandaro (svacchanda-) (Koili also RB40, GBG etc.)

(v) OIA ṣ : O. Or. chaṛa '6' (ṣaṭ, ṣaṛ BSAS etc.)

In some obscure words, Aryan and *Deśī*, we have also -ch-. for examples, Or. chokarā 'boy' also B chokrā, (pk choyara), cholā 'gram', chararā 'small shot', chāti 'chest', chāpa 'imprint', chiṭikiṇi "pellet bow", chiṭā 'sprinkle', chuārā 'dried date', choṭa 'small', chāṇṭibā 'to trim', chaṭapaṭa 'restlessness' etc.

(B) Medial and Final Oṛiyā -ch- represents :

(i) OIA cch MIA cch : Or. gacha 'tree' (skt lex. gaccha- pk gaccho), puchibā (pṛccha- pk pucchaï), bichaṇā 'bed' (cf vicchādaya-, vicchādana pā vicchādanaṁ), uchuḷibā (cf ucchalati pk ucchalaï, 'springs up') ; pichiḷa (picchala) 'slippery', O. Or. pichā 'question' (pṛcchā, PG 5) cf OB. piricchā

(ii) OIA kṣ MIA cch : Or. achi 'is' O. Or. achaï (To Turner ākṣeti pk acchaï but to Dr. chatterjee, Levi and Meillet IE *es-ske-ti) ; uchuṇi, echuṇi (etad kṣaṇa), cāñchibā 'to smooth with an adze' (cf takṣati pk tacchaï, takkhaï ; to Pischel tyakṣati pk cacchaï ff216), kācha 'loin cloth' (kakṣa- pk kaccha), māchi (makṣā, makṣikā pk macchia) O. Or. pābacha (MBh. U43 etc.) Mod. Or. pāhāca 'steps' (pādakṣepa ?) *sts.* samakaccha (samakakṣa) (MBh. U.125, As. 30) ; O. Or. (inscr.) parichā (parīkṣā), sācchi (sākṣī) ; O. Or. *sts.* machikā (makṣikā JC), bacha (vakṣa PP. 6th ch), icchu (ikṣu, PBG, JC) pachī (pakṣin SSN 35), ākañchā (ākāṅkṣā RM 20) beside kāñchaï (kāṅkṣati), antricha (antarīkṣa RM 40), cacchu (cakṣu RBR4), bacha (vṛkṣa RBR21) cf bṛcha (CM II 47) mod. Or. brucha ; paricha (parīkṣaka NC 44, also inscr), aracchita (arakṣita, Kaḷaśā, Bh), mṛgāchi (mṛgākṣī UBh. 43)

In many instancs, the letter kṣ is employed to denote -ch-, viz, kṣidra for chidra (BSAS) sārikṣa beside sāricha (sadṛśa RM 7th ch.), apakṣarī (BA) beside apcharī (PBG). The rhyme in many cases indicates the value of -kṣ- i.e. ch. viz. tuccha | mokṣa (BA) cakṣu | pucchu (BG) etc.

(iii) OIA ts MIA cch Mg. Pk śc : Or. bachā (vatsa pk vaccha), bāchuri 'calf' (vatsarūpam), Or. ucha 'festival, fountain' (utsava, utsa) compare also collq. Or. uścaba, ucchaba for utsava etc. O. Or. mauchaba (mahotsava GBG) ucchaba (utsava, TC, UBh 74 etc), ucchuka (utsuka UBh 45), ucchāhā (utsāha UBh 42), jyochnā (jyotsnā BGP 46) śrī baccha (-vatsa PP. 101) ; compare also rhyme kichi | batsi (BSAS), pucchi | batsi (BGi) etc.

(iv) OIA tsy MIA cch : Or. mācha O. Or. macha (inscr.) 16th c. (also in BNG. 9th ch.) maccha (1384 AD inscr. EOLS)

(v) OIA thy MIA cch : Or. micha (mithyā pk micchā but to Bloch Skt mṛṣā)

(vi) OIA ps MIA cch : Or. gochāo (*gṛpsa skt. pk guccha), O. Or. apcharī (PBG) (<apsarī)

(vii) OIA śc MIA cch : Or. bichā (vṛścika pk vicchia, vicchua), pacha (paścā, paścāt pk pacchā) ; O. Or. (inscr.) pa chima (paścima), Or. terachā, torachi, terecha (tiraści loc. pk tiricchi)

(viii) OIA śr MIA cch : Or. mūcha 'moustache' (śmaśrū pk mhacchu) cf Ass. moch.

(ix) OIA śy MIA cch : O. Or. kachapa (inscr. also in BNG 9th ch.) mod. Or. kaîcha (kaśyapa, kacchapa pk kacchava, kaocchabha)

(x) OIA -ś-, s : Or. *sts.* dacha (yaśas) 'fame' ; O. Or. săricha, sārikṣa (sadṛśa, RM 7th ch.) ; O. Or. *sts.* apcharī (PBG), apakṣarī (BA) apcharā (RB 31) *see above*; Mod. Or. nācha (nasya pk ṇassa)

(xi) OIA ñc, ñch MIA ñc(h) : Or. kichi 'something' O. Or. kichu (NC. 1 etc.) (kiṃcid, cf kaścid Aś kiṁchi, kichi), O. Or. pochaī 'wipes' (cf proñchati cf ODBL p 510)

(xii) MIA c - h by transposition of aspiration : Or. kacheri, kachiri (*kṛtya-gṛha pk *kaccahara)

(A) Initial Oṛiyā -j- represents :

(i) OIA j MIA j : Or. jāmu (jambu- pk jambu), jibha (jihvā pk jibbhā), jaṅgha (jaṅghā pk jaṅghā), O. Or. jamāi, juāî (MBh. G10.Ai. 6), jvāî (G10) Mod. Or. juāî, joî (jāmātā pk jāmāuya), jāgibā 'to be awake' (cf jāgarti), Or. jāṇe (jānāti pk jāṇaī, jāṇei), jiibā 'to live' (cf jīvati), jiṇibā 'to win' (jinā-), joṛibā (juṭ, juḍ-) 'to join'

(ii) OIA jy MIA j : O. Or. juṇha Mod. Or. jaṇha (jyotsnā pk joṇhā), jeṭhā (jyeṣṭha pk jiṭṭha)

(iii) OIA jv MIA j : Or. jara (jvara pk jara), jaḷibā 'to burn' (cf jvalati pk jalaï)

(iv) OIA dy MIA j : Or. juā (dyūta- pk juaṁ) cp also O. Or. jūta (dyūta, NC 16), Or. jui 'cremation fire' (dyuti) cf. Ass. jui ; O. Or. jaṃti 'for dianti, dyanti 'gives' (inscr. 13th c AD)

(v) OIA y MIA j : Or. jogāibā 'to supply' (denom. verb from MIA stem jogga <yogya-), juī (yuthikā pk jūhiā), jāā:ḷā O. Or. yamaḷā, also Mod. Or. jāûḷā (yamalau. m. du., yāmalam 'pair' pk jamala), juāḷi 'yoke' (cf yugam pk juaṁ), yibā 'to go', yāe 'goes' (cf yāti pk jāi), jujhibā 'to fight' (yudhya- pk jujjhaī), jā:ti 'betel-nut cracker' (yantram, yantrakam pk jantaṁ) ; compare also O. Or. je beside ye (yaḥ) 'who' *vide* EOLS

(vi) OIA -d- : Or. yādu beside dādu 'ring worm' (dadru), O. Or. *sts.* yūtī (dūtī, CM. v, 66)

(B) Medial and Final Oṛiyā -j- represents :

(i) OIA j MIA j : Or. rāja 'mason, brick-layer' (rāja-), bhāuja (Skt. lex bhrāturjāyā Deś. bhāujjā) 'elder brother's wife' ; bije 'goes ahead' (vrajati pk vayaī or, from vijaya)

(ii) OIA jj MIA jj : Or. bhujā 'parched rice' (cf bhṛjjati, *bhṛjjita pk bhujjia), saja, sajāibā (sajja pk sajja), lāja (lajjā pk lajjā), kājaḷa (kajjala pk kajjala-), ujāṛa, ujāṛibā 'to upturn' (*uj-jāṭaya 'uproots' cf skt jaṭā 'root' pk ujjāḍei, ujjaḍa), O. Or. ujāgara 'awake' (ud-jāgara, NC 44), Or. ujāṇi 'upstream' (ud-yāna)

(iii) OIA jjv MIA jj : Or. ujaḷa (ujjvala pk ujjala) cf Ass. ujalā B ujal Mai ujjar, ujarakā 'white' Bh ujar 'bright' Aw. ujar 'white' OMai ujala (CDIA p.76) ; Or. ujāḷibā 'to trim a lamp or fire' (*ujjvālayti pk. ujjāloi *vide* CDIA p.76)

(iv) OIA jy MIA jj : Or. bhijibā 'to get wet (cf abhyajyate 'is anointed' cf. skt. 3.pl. abhyañjati pā abbhañjati), O. Or. rāīja (inscr. EOLS.) (rājya pk rajja), bhoja, bhoji 'feast' (bhojyam pk bhojja), baṇija 'trade' baṇijāra 'a trader' (vāṇijya, vāṇijyakāra), bhājibā 'to break' (bhajyate 'is broken' pk bhajjaī) cf. bhāṅā in Bengali, but OB bhājaī, bhāñjia Ass. bhāj, bhāñj. Or. khojibā 'to search', khoja 'trace' (*khojja 'footprint' *vide* ND p. 129)

(v) OIA jr MIA jj : Or. bāja ? 'thunder' (vajra)

(vi) OIA ñj MIA ñj : Or. āñjuḷi (añjali pk añjali), gañjā (gṛñja 'a particular plant', gañjā 'hemp' pk gañjā cf skt gañjikā), piñjaṛā 'cage' (piñjara-), Or. bhājibā 'to break' (cf *bhañjati) cf Or. bhāñja, Guj. bhā:jvū, *see above.*

(vii) OIA dy MIA jj : Or. khajā 'sweetmeat' (khādya- pk khajjyaa), bājibā (cf vādyate pk vajjaï), bijuḷi (vidyut, vidyullatā pk vijjuliā, vijjulā), anāja 'vegetables' (annādyam), saja 'fresh' (sadya), upujibā (cf. utpadyate pk uppajjaī, āji (adya, adye pk ajja)

(viii) OIA bj MIA jj : Or. kanāüja (also MBh B. 14, Ai. 21) [kanyakubjam pk kaṇṇaüjja], kuja (kubja- pk kujja)

(ix) OIA yy MIA jj : O. Or. śeya (MBh. U100) Mod. Or. śeja (śayyā pk sejjā with -e- after śete) cf Ass. sejā 'bed of a river'

(x) OIA rj MIA jj : Or. khajuri 'date palm' (kharjūra- also kharju- pk khajjūra), mājibā 'to cleanse' (cf mārjati pk majjaī), sāji (māṭi) 'fuller's earth' (sarjikā pk sajjiā), gājara 'carrot' (lex. garjaram pk gajjara), bhāji 'fried', bhājibā 'to fry' (bharjita, *bhṛjjati, bharjayati pk bhajjaī), O. Or. gājibā (cf. *gājile gagane mehu*, RM56) cf OB. gājai (garjati), Or. sajaḷasa (sarjarasa) 'resin'

(xi) OIA ry MIA jj : Or. ajā 'mother's father (ārya-, ārayaka- pk ajjaa), *sts*. bhāriyā (MBh.) 'wife' (bhāryā pk bhajjā), O. Or. (inscr) sūjro (sūrya) Mod. Or. suruja, O. Or. ājī (BC38), beside āyī (RBh p. 63), also mod. Or. āī (āryikā)

(xii) OIA y MIA j : O. Or. duje (Gopībhāṣā), dujā (Bh. ii 32) 'second' (dvitīya, *duijja, *duajja cf ODBL p476), majura (referred in 'The history of Bengali language' by B. C. Majumdar p. 93 footnote) [mayūra Aś. majura (śh.) majūla (kā) pk maūra, maūla] ; kalejā 'liver' (kāleyaka- pk kāleya), bhāṇiji 'sistor's son' (bhāgineya- pk bhāiṇejja, bhāiṇijja after bhatijja <skt bhrātrīya). Compare also O. Or. (inscr.) nijojilo beside niyoga. [EOLS]

(xiii) OIA jh through deaspiration : saâja beside saâjha (sandhyā), sijibā beside sijhibā (cf sidhyate pā sijjati poss. contaminated with skt. svidyati ND p607).

(xiv) OIA d(h) followed by palatal vowel : Or. yujiṣhṭi (yudhiṣṭhira) cp also O. Or. yujeṣṭhi (BA, GBG, PG42) Or. *ts*. satyabāji (satyavādin)

(xv) OIA ly>yy (Māgadhī) : Or. sajāru (śalya-rūpa) also in B. Ass.

(A) Initial Oṛiyā -jh- represents :

(i) The words with initial -jh- of mostly either Non-Aryan or onomatopoetic creation from obscure sources ; though in some cases they may be linked with Sanskrit words but cannot be actually equated. They are more or less common in all the NIA languages.

Examples : Or. jhaka jhaka 'shining' (cf pk. jhaṅkhaī 'is burnt'), jhagaṛā 'quarrel' (cf pkt jhagaḍa), jhaṭa 'quickly' (cf late skt jhaṭiti pk jhaḍatti), jhaṭakibā 'to dazzle', jhaṭkā 'blash of wind', jhana-jhana 'clanking', jhāpaṇā 'lid, cover', jhap 'quickly' (pk jhapia 'throws down' cf skt. jhampa 'jump'), jhumukā 'earring with pendants', jhāmpa 'to jump', jhaṛi 'continuous rain' (Deś jhaḍī 'continuous rain'), jhalakibā 'flash' (Ap jhalakkia 'burnt'), jhāṭeibā 'to sweep' (cf pk jhaṇṭia 'struck'), jhāṇka 'flock', jhāṛibā 'to exorcise', 'to shake off', jhimi-jhimi 'tingling sensation', jhila 'pool' (cf pkt jhillī 'wave'), jhilimili 'vivid light', jhuṅkibā 'to stoop', jhuṭh 'false' (Deś. jhuṭṭha), jhumpuṛi 'hut' (Ap jhumpaḍa), jhuribā 'to lament' (pk jhūraï 'dries up'), jhura 'crumb', jhula 'soot', jhola 'juice' jhāsa 'jump', jhiṅgāsa 'rebuke', jhiṅkibā 'to shake'

(ii) OIA jh : Or. jhāḷa 'sweat' O. Or. (inscr) jhaḷāi 'welded' (skt lex. jhālā 'cricket', jhalā 'sunheat' Ap jhalakkia 'burnt'), jhālara (lex. jhallarī 'curl' pk jhallarī), jhāû 'a kind of tree' (skt lex. jhāvu- pā jhāvuko), jhāñjha (cf skt jharjhara 'drum')

(iii) OIA kṣ (I.Ir. gz) MIA jh: Or. jharibā 'to drip' (cf skt. kṣarati 'trickles' pk jharaï cf also jharat 'flowing down'), jhāmā 'over-burnt' (kṣāma), jhāma 'burnt' (RB46), jhāḷa 'sweat' (kṣāra), O. Or. jhina, (kṣīṇa RBh) 'fine'.

(iv) OIA j through aspiration: Or. jhuṭā 'leavings' (juṣṭa- 'pleased' pk juṭṭha), jhunā ? 'dry cocoanut' (jūrṇa- pk juṇṇa), jhāñjhara ? 'porous' (jarj a)

(v) OIA d through aspiration or -dh-: Or. jhia, jhua (duhitā pā dhitā), also jhuṇā (MBh. K. 27) cp B. dhunā 'resin' (dhūpana), jhiṭa beside dhiṭa (dhṛṣṭa)

(vi) OIA dhy MIA jjh: Or. jhā, ojhā (adhyāpaka- pk aojjhāa; to Turner adhyāyī pk ajjhāvaa)

(B) Medial Oṛiyā -jh- represents:

(i) OIA dhy MIA jjh: Or. śujhibā 'to clear a debt' (cf. śudhyati pk sujjhaï), jujhibā 'to fight' (yudhyate pk jujjhaï), majhi (madhye pk majjhe), sijhe 'is boiled' (sidhyate pā. sijjati), bujhibā (budhyate pk bujjhadi), samajhibā, samajha 'to under-stand' (sambudhyate pk saṁbujjhaï), O. Or. (inscr) Biṃjha (also in GBG); (vindhya) saṃjha Mod. Or. sañj (h)a (sandhyā)

(ii) OIA hy MIA jjh: Or. bojha 'load' (vahya- pk vojjha) cf B. bojhā 'load', Ass. bojā

(iii) Through spontaneous aspiration or j + h through metathesis: Or. jhāñjhara ?' porous' (jarjara), ājhû beside āji (adya + hi, pk ajja)

THE CEREBRALS

(A) Initial Oṛiyā -ṭ- represents:

(i) OIA ṭ MIA ṭ: Or. ṭāṅgi 'axe' (ṭaṅka- lex. ṭaṅga pk ṭaṅka): ṭaṅkāra 'twang' (late skt ṭaṁkāra pk ṭaṅkāra), ṭaṅkā 'a rupee' (ṭaṅka) etc.

(ii) MIA ṭ from OIA dental -t- through spontaneous cerebralisation: Or. ṭasara, tasara 'coarse silk cotton' (tasara later trasara- pk tasara, ṭasara) Or. ṭānibā 'to pull' (connected to skt. tānaya- cf ND p.240), ṭalibā 'to vacillate (tarati> *ṭalati ? caus. ṭālayati ND p. 240), ṭikā 'mark' (tilaka ? Deś. ṭikka), ṭapibā 'to overleap' (prob. skt tarpati. *tarpayati 'moves', 'casuses to move'), ṭāṅgibā 'to hang up' (taṁsayati ? pk ṭaṅkia 'opened out' cf ND p.42)

(iii) MIA ṭ from -t- in connection with r(1) either immediately following or in a following syllable: Or. ṭeṛhā 'crooked', ṭerā 'squint' (prob. connected with skt tiryak+arddha ? cf ODBL p.490; *treḍḍ (h) a, *terḍ (h) a, *teḍ (h) ra cf ND p.246), ṭahalibā, ṭahal 'to ramble' (skt dhātp. trakhati 'goes', *ṭahalla cf Gothic θragjan 'run' Eng thrall cf. ND p.241), ṭuṭibā 'to break' (truṭyati pk tuṭṭai, ṭuṭṭai) etc.

(iv) Some *Deśī* sources : Or. ṭekibā 'to lift up' (Deś. tokkara), ṭakaṭaka 'rapping', ṭāṅgaṇa 'large pony', ṭaṅka 'stitch' cf B. ṭā:kā ; ṭāṭi 'bamboo net' (Deś. ṭaṭṭī fence), ṭāpu 'island', ṭāl 'evasion', ṭipibā 'pinch', ṭukura 'piece', ṭuṭi 'loss', ṭopi 'helmet' (pk ṭopiā), ṭopara, ṭola 'Skt. school', ṭuṇā 'witchcraft', ṭikiā 'charcoal cake' etc.

(B) Medial Oriyā -ṭ- represents :

(i) OIA ṭṭ MIA ṭṭ : Or. kuṭibā 'to pound' (kuṭṭayati pk kuṭṭei : Bloch suggests a Dravidian origin), kuṭuṇi 'bawd' (kuṭṭanī), kaṭuāḷa 'watchman' (koṭṭapāla, koṣṭhapāla), khaṭā 'sour' (khaṭṭa pk khaṭṭa), ghāṭa 'landing place in a stream' (ghaṭṭa pk ghaṭṭa), pāṭaṇā 'village, old city' (paṭṭanam pk paṭṭana cf skt pattana), pāṭa 'silk, jute' (paṭṭa- pk paṭṭa), bhāṭa 'bard' (bhaṭṭa- pk bhaṭṭa cf skt bhartā, cf ODBL p491), leṅguṭi 'loin-cloth' (*liṅgapaṭṭa), chaṭāṅki (*ṣaṭ-ṭaṅka) 'a measure of weight', hāṭa (haṭṭa- pk haṭṭa) 'market' etc.

(ii) OIA ṭy MIA ṭṭ : Or. ṭuṭibā (truṭyati pk tuṭṭai, ṭuṭṭai), phuṭibā 'to burst out' (sphuṭyate pk phuṭṭai)

(iii) OIA tr MIA tt, ṭṭ : Or. ṭhāṭa 'bamboo framework for decoration', also 'style, array' (sthā-tra cf OBDL p491, *traṭṭa cf Deś. ṭaṭṭī 'fence'), chiṭā, chiṭāibā 'to sprinkle' (*chitra, *chiṭṭa<kṣipta ND p197)

(iv) OIA rt MIA tt, ṭṭ : Or. keuṭa (kaivarta-), kaṭāri (kartarikā, kaṭṭārikā Deś. kaṭṭārī), dihuṛi 'lampstand' (dipavartī-), neuṭibā 'to turn back' (nivartate pk ṇivvattei, ṇivvaṭṭei), kāṭibā 'to cut', kāṭanā (kartati cf kṛntati pk kaṭṭai), bāṭibā 'to pound' (vartayati pk vattai, vaṭṭei), bāṭi 'pot' (vartaka- 'round' pk vaṭṭa, vaṭṭaga), nāṭuā 'dancer' cf O. Or. naṭuva (1271 A. D. insc.) (nartaka- pk naṭṭaa), aṭe 'is' 'exists' (vartate pk vaṭṭaï), aṭā 'flour' (skt lex. attam <*arta 'food' ND p. 33 cf Gk aleö 'to grind' *vide* T. Burrow: The Sanskrit Language, p. 47), Or. āḷaṭa (ālāvarta) 'a big fan'

(v) OIA ṭv MIA ṭṭ ; O. Or. khaṭa 'bedstead' (khaṭvā pk khaṭṭā)

(vi) OIA rtm MIA ṭṭ : Or. bāṭa 'road' (vartma pk vaṭṭa) cf OB anābāṭā (anāvartma-) B. Bh bāṭ Ass. bāṭ Mai bāṭa

(vii) OIA ṣṭr MIA ṭṭ : Or. uṭa 'camel' (uṣṭa pk uṭṭa), Or. Marahaṭṭā [MBh] (Mahārāṣṭra- pk marahaṭṭa)

(viii) OIA ṣṭ MIA ṭṭh, ṭṭ : Or. iṭā 'brick' (iṣṭaka pk, iṭṭhakā, iṭṭā), bhaṭā 'ebb-tide' (bhraṣṭa- pk bhaṭṭha), miṭāibā 'to terminate', menṭibā 'to rescind' (mṛṣṭa- pk meṭāvaï, miṭāvaï 'wipes out', miṭṭijjaï 'is wiped out'), jhuṭā 'leavings' (juṣṭa- pk juṭṭha), ghoṭibā 'to mix by stirring' (ghṛṣṭa), piṭibā 'to beat' (piṣṭa- to Bloch, but Turner does not agree with him), dhiṭa (dhṛṣṭa 'bold' .pk dhiṭṭha), haṭa 'joke' (hṛṣṭa) (also in L. 81), O. Or. bhaṭa 'fallen' (bhraṣṭa PG 18), Or. pāiṭi 'household work' (prāviṣṭi).

(ix) OIA ṛtt MIA ṭṭ : Or. māṭi (mṛttikā pk maṭṭiā); also -ṭa- as formative suffix in Oṛiyā and other Māgadhan languages. The -ṭa is derived from Skt vṛtta MIA vaṭṭa > aṭa; compare also Or. copṭā 'flat', bokaṭe 'who goes astray' cf B bakhāṭe OMar vokhaṭe (vakra ? Dr. Chatterjee suggests vah-, vahakka, *see* p. 148), jamāṭ 'coagulation, cement' (cf yamyate 'is fixed')

(x) OIA st MIA ṭṭ : Or. heṭa 'downcast' (skt adhastāt *adhiṣṭhāt, cf Budd. skt heṣṭā MIA heṭṭha), pālaṭibā 'to change' (paryasta pk pallaṭṭaï, palaṭṭaï Deś allaṭṭa-pallaṭṭam; cf ODBL p491. But J. Bloch suggests *paryaṭya *palyaṭya cf pk pariaṭṭai cf skt paryaṭanam paryaṭati; and Turner suggests skt parivartate cf ND p 369)

(xi) OIA ṇṭ MIA ṇṭ : Or. kaṇṭā (kaṇṭaka- pk kaṇṭaa), bāṇṭibā 'to distribute' (vaṇṭati pk vaṇṭaï) *see* also p. 86

(xii) OIA nt : Or. beṇṭa (vṛnta, vṛntāka MIA *voṇṭa, *vaṇṭa) cf OB beṇṭa OAw bêṭali Aw bêṭ 'handle' Mai bhā:ṭā Bh bhêṭī Ass beṭu 'calyx of flower'

(xiii) OIA ṭ representing MIA ṭ, ṭṭ : Or. goṭā 'one' (guṭikā 'pill' MIA *goṭṭa), ghoṛā (ghoṭaka- pk ghoḍaa), roṭi 'loaf' (late skt roṭikā pk roṭṭa 'rice flour', roṭṭagā 'fried', ruṭṭiā Deś. roṭṭa), biṭāla 'lecherous' (late skt viṭa- 'licentious rogue' pk viṭṭāliya Ap. viṭṭāla; J. Bl. connects to viś- nom. viṭ cf viṣṭā 'dung'), peṭarā 'basket' (piṭakam) chāṭa, chaṛi, chaṛa 'thin stick' (skt lex. chaṭā, chaḍī 'a kind of palm'), ucāṭana 'dejection' (uccāṭa- 'ruining')

(xiv) MIA ṭṭ and *Deśī* ṭṭ and words of obscure origin : Or. phāṭibā 'to split' (pk phaṭṭaï <*sphāṭyate, passive of sphāṭyati), phiṭibā 'to get loose', (pk phiṭṭaï 'is broken'), bheṭibā 'to meet' (pk bhiṭṭijjaï, bhiṭṭā 'present'), chuṭibā 'to run' (pk chuṭṭo, caus. of choṭayati 'cuts'), cāṭibā 'to lick' (*caṣṭa past pt. of cakṣ ?), chāṇṭibā 'to trim', choṭa 'small', peṭa 'belly' (Deś. poṭṭa), luṭibā 'to plunder' (pk luṭṭaï cf skt luṇṭhati, loṭhayati), chiṭikiṇi 'pelletbow', chaṭapaṭa 'restless', ṭakaṭaka 'rappling', ṭāṭi 'bamboo net' (Deś ṭaṭṭī 'fence' ṭaṭṭiā 'screen'), ṭuṭi 'loss', caukhuṇṭā 'square', juṭibā 'to assemble', jhāṭi 'brushwood' (Deś jhaṇṭī), thaṭṭā 'joke', dāṇṭibā 'to check', nipaṭi 'completely', loṭā 'pot', coṭ 'wound', haṭibā 'to retreat', phāṭaka 'gate', cuṭki 'snap of the finger', maṭara 'pea', cimuṭā 'tongs', maṭkā 'fragile', maṭmaṭa 'scaring with distended eye', āṇṭa 'pride', kaṭkaṭ 'sharp pain', kuṭā 'straw', kuṭā-kuṭi 'chopping up', khaṭa-khaṭa 'rattle', khaṭibā 'to suit', ghaṇṭā bell', caṭ 'quickly', ghumbaṭā 'veil' cf B. ghomṭā H. ghû:ghaṭ, caṭuṇī 'sausage', miṭi-miṭi 'twinkling', jhaṭa-jhaṭa 'at once', jhaṭā 'dead branch', jhaṭakibā 'to dazzle', jhapaṭa 'scampering', jhāṭeibā 'to sweep', laṭ-paṭa 'shaking' etc.

(A) Initial Oṛiyā -ṭh- represents :

(i) OIA ṭh MIA ṭh Or. ṭhākura (ṭhakkura- pk ṭhakkura, related to Turkish tigir)

(ii) OIA sth MIA ṭh: Or. ṭhiā 'standing' (sthita- pk thida, thia, ṭhida), O. Or. ṭhāba Mod. Or. ṭhāi, ṭhā 'place' (sthānam pk thāma, Ap ṭhau), ṭheka 'anything fixed' (skt stheya- 'to be placed', sthemā 'firmness' pk thea 'durable'), ṭhik 'right' (perh. skt sthita pk ṭhiaa 'upright'.)

(iii) -ṭh- unexplained in number of words possibly of *Deśī* origin : Or. ṭhāka. ṭhakāṭhak 'clattering', ṭhaga, ṭhaka 'thief', ṭhakibā 'to cheat', ṭheṅga 'leg', ṭhela, ṭhelā-ṭheli, ṭhelibā 'to push' ṭhesa 'prop', ṭhokara 'stumbling' ṭhuṅkibā cf B ṭhokā 'to thud', ṭheki 'earthen pot', ṭhāhi 'joke' etc.

(B) Medial Oṛiyā -ṭh- represents :

(i) OIA ṇṭh MIA ṇṭh : Or. suṇṭhi 'dried ginger' (śuṇṭhi- pk suṇṭhī), kaṇṭhi 'necklace' (kaṇṭhaka-, kaṇṭhikā pk kaṇṭhiā), thuṇṭhā 'maimed' (pk thuṇṭha 'stump', also ṭuṇṭa 'having the hands cut off') *see* also p. 86.

(ii) OIA nth through the influence of -r- : Or. gaṇṭhi 'knot' (granthi pk gaṇṭhi)

(iii) OIA rth old Māgadhī ṭṭh : Or. cauṭha, cauṭhi 'fourth' (caturtha pk cauttha cf ND p. 186 but perh. ṭh is derived from *catuṣṭha cf ṣaṣṭha), tuṭha 'landing place' (*tūrtha cf tirtham pk tittha) O. Or. āhuṭa ["āhuṭa hāta deuḷare, diā achanti e bhāvare" (BSAS)] cf Jn. āuṭha OMai. ahuṭha Mai. huṭṭhā SKK āhuṭha MB āuṭ (ODBL 493) Bh. āhuṭh, āguṭhā Aw. hû:ṭhā '3½' (ardha-caturtha, ardha *turtha pk aḍḍhuṭṭha)

iv) OIA ṣṭ MIA ṭṭh : Or. muṭhi, muṭhā 'fist' (muṣṭi- pk muṭṭhi), miṭhā 'sweet' (mṛṣṭa- pk miṭṭha, maṭṭhā), piṭhā (piṣṭa pk piṭṭha), paīṭha 'payment, delivery' (praviṣṭa- pk paviṭṭha-, païṭṭha), diṭhi 'sight' (dṛṣṭi pk diṭṭhi), siṭhā 'dregs' (śiṣṭa- pk siṭṭha), maṭhuā 'slow' māṭhibā 'to polish' (mṛṣṭa- pk maṭṭha), lāṭhi (yaṣṭi- pk jaṭṭhi skt * laṣṭhi pk laṭṭhi, contaminated with lakuṭa- cf ND p. 553), riṭhā 'soap nut' (ariṣṭa- pk ariṭṭha, riṭha), pāiṭhi, beṭhi 'household work' (viṣṭi- *prāviṣṭi 'forced labour' pk viṭṭhi, veṭṭhi), aîṭhā (āmṛṣṭa-), āṭha (aṣṭa pk aṭṭha), aṭhara '18' (aṣṭādaśa Ap aṭṭhāraha), aṭhacāḷiśa (aṣṭacatvāriṁśat), ṣāṭhi-e (ṣaṣṭi- pk saṭṭhi), causaṭhi (catuḥ-ṣaṣṭi pk causaṭṭhiṁ), dhiṭa 'shameless' (dhṛṣṭa pk dhiṭṭha) etc.

(v) OIA ṣṭh MIA ṭṭh : Or. niṭhura (niṣṭhura pk niṭṭhura), caukāṭha 'door frame' (*catuṣ-kāṣṭha pk caükkaṭṭhī), piṭhi 'back' (pṛṣṭha to Bloch but cp skt pṛṣṭi 'rib', Avestan parstī pk piṭṭhi), jeṭhā (jyeṣṭhatāta pk jeṭṭha cf ND p. 222), seṭhi (śreṣṭhi Deś. seṭṭhi), goṭha (goṣṭha, goṭṭha) 'pasture', koṭhā 'large house', (koṣṭhakam pk koṭṭhaa), oṭha 'lip' (oṣṭha pk oṭṭha), aṅgaṭhā 'fireplace' (agniṣṭhikā pā aggiṭṭho), guiṭhā (go-viṣṭhā), āṅguṭhi 'ring' (anguṣṭhya), kāṭha (kāṣṭha, kaṭṭha) kaṭhā 'measure of vessel' (kāṣṭhā) uṭhibā (cf uttiṣṭhati, *uṣṭhāti pk uṭṭhedi), ṣaṭhī (ghara) [ṣaṣṭhī pk saṭṭhi]

(vi) OIA sth MIA ṭṭh : Or. āṇṭhu 'knee' (Turner : ã:ṭhu ?) [asthi, asthīvantau du. m. pā aṭṭhi], paṭhāibā 'to send' (prasthāpayati pk paṭṭhāvei, paṭṭhāvaï), koṭhi (koṣṭhi), uṭhibā 'to rise' (utthita, *uṭṭhita <ud-sthā), keûṭhi 'where' (kutra, kva-stha, Tulpule : OMR p. 197a, Bloch 312a) cf Jn koṭhuni 'from what place', OMar koṭhê OMai koṭhā Mai kaiṭhia Bh keṭhan, keṭhen, keṭhê 'where'

(vii) OIA ṭ by aspiration : Or. thaṇṭa 'beak' (troṭi, tuṇḍa ?)

In several cases, Or. ṭh remains unexplained : Or. soṭhā, soṇṭhā 'staff', jhuṭh 'false' (Deś jhuṭṭha), ciṭhi 'letter', ciṭhā 'rough draft'

(A) Initial Oṛiyā -ḍ- represents :

(i) OIA ḍ MIA ḍ : Or. ḍama 'a caste' (ḍomba- pk ḍumba, ḍomba connected by Przyluski to Austro-Asiatic), ḍaṅkuṇi beside ḍāāṇi (ḍākinī), ḍamaru (skt lex. ḍamaru- conn. to Austro-Asiatic source by Przyluski), also O. Or. ḍāmāḷu (MBh.)

(ii) OIA -d- MIA d, ḍ (with or without influence of -r-) : Or. ḍoli 'litter' (dolā, dolikā pk ḍolā), ḍara 'fear' (dara- pk ḍara), ḍāā:sa 'buffalo-fly' (daṁśa pk ḍaṁsa), ḍora 'striped' dauṛi 'rope' (late skt davara pk davara, ḍora also Deś ḍāro 'mat fibre'), ḍāḷimba, ḍālima, beside dāṛimba (skt lex. dāḍimba pk dāḍima, dālima), ḍāli (dāla- 'split peas' pk dāli), ḍimiri (udumbara-, cl. skt udumbara pk umbara—an Austro-Asiatic word), ḍolā 'pupil of eye' (dola- 'swinging' pk ḍolā 'eye'), ḍihi 'high ground, dwelling place' also Or. (ghara)-ḍiha 'floor' (dehī 'mound'), ḍāhāṇa (dakṣiṇa pk dakkhiṇa), Or. ḍaṅgā, ḍiṅgā (pk ḍoṅgi conn. to skt droṇa pk doṇī 'canoe'), ḍāla 'branch' (cf. skt. dāra- 'splitting', dala 'small shoot' pk ḍāla), O. Or. ḍāha (ḍāha, SC 52) cp. OB ḍāha, Or. ḍahaka 'heat' (dāhaka)

(ii) Words of *Deśī* origin or of obscure origin : Or. ḍālā 'basket' (pk ḍalla), ḍāṅga 'stick' (pk ḍaṅga 'stick'), ḍakāita 'robber', ḍaṅkā 'drum', ḍāka 'mail', also 'shout', ḍāku 'robber', ḍibā 'small casket', ḍubibā 'to sink' (metathesis of *buḍḍa), ḍerā 'tent', ḍaula 'figure', ḍāḷacini 'the bark of cinnamon tree', ḍempha 'calyx' ḍiibā 'to jump' etc.

(*B*) *Medial and Final Oriyā-ḍ/ṛ-represents* :

(i) OIA ṭ MIA ḍ : Or. māṅkaṛa (markaṭaka pk makkaḍa Ap makkala), ghaṛi 'pitcher' (ghaṭaka- pk ghaḍaga conn. to skt grathaka), ākhaṛā (akṣavāṭa skt lex. akṣapāṭa, a sanskritised form of pkt pā. akkhavāṭo), kaṛuā 'bitter' (kaṭuka pk kaḍua), O. Or. anturī Mod. Or. ātaṛa (antaḥ-kuṭa to Bloch but *anta puṭikā to Sen cf CGP), koṛi-e (koṭi), ghoṛā (ghoṭaka pk ghoḍaa), lauṛi 'stick' (lakuṭa-, laguḍa pk lauḍa laula, lakkuḍa conn. to Austro-Asiatic origin acc. to Przyluski), puṛā 'packet' (puṭaka- pk puḍaa), baṛi 'pill' (vaṭa-, vaṭaka, vaṭikā pk vaḍī), phoṛi 'small hole', phoṛibā (sphoṭa- pk phoḍaa, phoḍei), raṛi 'scream' raṛibā (raṭati pk raḍaī), ughāṛi 'raised platform', cf oghālibā 'to open' (udghāṭa- pk ugghāḍei), ghaṛi (ghaṭikā pk ghaḍiā), kaṅkaṛā (karkaṭa pk kakkaḍa), bāṛi (vāṭikā pk vāḍiā), kāpuṛia 'cloth seller' (karpaṭa-, -ikā pk kappaḍa), peṛi 'basket' (peṭa-, peṭaka- pk peḍa), bāṛa 'fence' (vāṭa- pk vāḍa, vāḍaga, vāḍī cf J. Bl. p. 405, to Turner varti- 'circuit' pā vaṭṭi 'enclosure'), caṛāi 'sparrow' (caṭaka), siṅgaṛā (śṛṅgāṭaka), jaṛa 'root' (jaṭā), juṛā 'knot of hair' (jūṭa or, jaṭā+cūḍa- pk jūḍa ?), joṛibā (*yoṭaya- pk joḍei), khiṛiki 'side door' (khaṭakkikā Deś khaḍakkī), kukuṛā (kukkuṭa) etc.

(ii) OIA ṭh MIA ḍh through deaspiration : Or. maṛiā 'hut' cf B. marāi Ass maṛā 'tuft of grass at either end of a ridgepole or of a house' (maṭha- 'hut' pk maḍha)

(iii) OIA ḍ MIA ḍ : Or. naṛā 'rice-straw', naḷa 'reed' (naḍa, naḷa. cl. skt nala- pk ṇaḍa, ṇaḷa), nāṛi 'vein', nāḷa 'rivulet' (nāḍī, nāḷī cl. skt nālī pk ṇāḍī, ṇālī), dāṛimba (skt lex. dāḍimba pk dāḍiba, dālimo), taṛā 'a big tank' (taḍāga pk taḍāga, taḷāa), talāa), biṛāḷa, biṛāṛi (biḍāla- pk biḍāla, birālaa, bilāla), māṇḍia 'alcoholic drink' (maḍaka-), kaṛa-kaṛa 'rustling' (cf skt kaḍat, kaḍat-kāra- 'sound of crashing' (pk kaḍakaḍiā), baṛaśī (skt baḍiśa pk baḍisa, balisa), guṛa (guḍa lex. guḷa-, gulyam pk guḍa, gula) etc.

(iv) OIA ḍy MIA ḍḍ : Or. jāṛa 'coldnes' (jāḍyam 'dullness' cf jalhu-, jaḍa pā jaḷo cf. ND p. 213)

(v) OIA ḍr MIA ḍḍ : Or. oṛa 'an aboriginal inhabitant of Orissa', oṛiā (oḍra, uḍrāḥ, auḍrāḥ, auḍrīyaka), baṛa 'big' (lex. vaḍra- pk vaḍḍa ; acc. to Dr. Chatterjee, vṛta, vaṭa)

(vi) OIA ḍḍ MIA ḍḍ : Or. uṛibā 'to fly' (uḍḍayate pk uḍḍei ; uḍḍ- <skt uddravati as suggested by Bloch), buṛibā 'to sink' (pk buḍḍai skt buḍ), laṛu (laḍḍuka pk laḍḍua), gaṛu 'a small earthen pot' (skt lex. gaḍḍuka), hāṛa (lex. haḍḍam pk haḍḍa J. Bl. suggests connection with asthi, Deś. haḍḍa), goṛa 'foot' (MIA godda, goḍa)

(vii) OIA ṇḍ MIA ṇḍ : Or. bhaṇḍāra (bhāṇḍāgāram pk bhaṇḍāāra, bhaṇḍāra), paṇḍā (paṇḍita pk paṇḍia), dāṇḍa 'by path' (daṇḍikā), raṇḍī (Turner : rāṇḍa) [raṇḍa-, raṇḍā 'slut, widow' pk raṇḍā], aṇḍā 'roe' (āṇḍam <*andra pk aṇḍaṁ), suṇḍa 'trunk of an elephant' (śuṇḍā pā soṇḍā), saṇḍa (ṣāṇḍa) beside saṇḍha ; maṇḍa 'starch' (maṇḍa- pk maṇḍa), haṇḍā (haṇḍikā in late skt.), muṇḍā 'stump' (muṇḍa pk muṇḍa 'shaved'), O. Or. kaṇḍcāra 'helmsman (RB 21) Mod. Or. kāṇḍārī (also in B. Ass.) cf OB. kaṇṇahāra NB. kā:ṛār MB. kāṇḍhārī (kāṇḍāgārin, karṇadhāra pk kaṇṇahāra, cf ODBL 440) *see* also pp 83, 89.

(viii) OIA -t- mainly with association of ṛ, r : Or. paṛiśi, paṛośī (prativeśī pk paḍivesia or, poss. prativāsī ND. p. 361), paṛibā (patati pk paḍaï), phaṛiṅga (pataṅga late skt phaḍiṅgā pā pataṅgo), haṛiṛā (haritakī pk haraaī, harīḍaī, haraḍaī), O. Or. (inscr.) paṛiā, also in mod. Or. (patita)

(ix) OIA rt, ṛt MIA ṭṭ : Or. dihuṛi (dīpavarti), gāṛa 'hole' (garta- pk gaḍḍa, gaḍa), saṛaka 'road' (cf sṛti- 'path' pk sii), saṛibā 'to rot' (*śṛta cf skt Dhātp. śaṭati 'is dissolved' cf. skt śīrṇa), naṛa-naṛa 'shaking' (nṛtūḥ, naṭa- pk naḍa), ukhāṛibā 'to uproot' (*ut-skṛta cf skt utkaroti pk ukkhalia cf ND p. 44 but utkhāta cf ODBL, to Bloch utkarṣati) etc.

(x) OIA nt MIA ṇṭ, *ṇḍ : Or. bheṇḍi 'a vegetable' (bhṛntikā skt lex. bhaṇṭākī, also skt vṛntāka 'egg plant' pā bhaṇḍākī pk bhiṇṭiā), biṇḍā 'plug' cf B bîṛā 'ring of leaf' Ass birā 'a betel leaf' (pk biṇṭa 'covering of fruit', viṇṭaï 'wraps round', viṇṭiā 'bundle' ND p. 438)

(xi) OIA dr MIA ḍḍ : Or. khuṛā O. Or. khuṛa (kṣudratāta), chiṛibā 'to tear' (chidra- pk chidda, *chiḍḍa)

(xii) OIA dd MIA dd, ḍḍ : Or. oṛasa 'bed bug' (uddaṁśa-pk uddaṁsa, uḍḍasa)

(xiii) OIA nd MIA ṇḍ : Or. saṇḍuāsī 'pincers' (sandaṁśa- pk saṁḍāsa)

(xiv) OIA rd MIA ḍḍ : Or. kauṛi (kapardikā pk kavaḍḍa, -iā), chāṛibā 'to abandon' (chardayati pk chaḍḍaï), māṛibā 'to mix by grinding' (mardati pk maḍḍaī, maddaī), pāṛibā 'to fart' cf B Ass. pāḍā (pardate), guṛī 'paper kite' B ghûṛi (cf gūrdati 'jumps, plays')

(xv) OIA l > MIA ḷ > -ḍ- = -ṛ- : Or. tāṛi 'fermented juice of palm' & tāḷa 'toddy palm' (tāla- pk tāla, tāḍa), O. Or. lāṅguṛa (MBh U82), lāṅguḷa (U183) (lāṅgulam pk laṅgula, laṅgola), O. Or. dihuṛī 'vestibule' (MBh.) Mod. Or. dehuṛi (cf skt dehalī 'threshold' cf dehī 'mound'), biṛāṛi (biḍāla pk biḍāla, birālaa bilāla), gauṛa 'cowherd' (gopa-la but to Dr. Chatterjee *gayapāla), O. Or. kuhuṛi (MBh Ai. 93) [kuheli, kuhelikā cf skt kuhū 'fog]', paraṛā 'a vegetable' (cf paṭola pk paḍola) ; pahaṛa cf B payṛā, paylā (pratha-la, MBh U106), mukuḷā, 'free' (*muk-na, + la), O. Or. āhuṛa bāhuṛa 'restless' (ākula vyākula, RM p. 50)

(xvi) OIA r MIA r : Or. maṛaka 'plague' (skt maraka or, extension of mara-akka influenced by MI maḍa 'dead' cf ND p. 494), dauṛi 'rope' (late skt davara pk davara), naṛiā (connection doubtful with nārikela- pk ṇāliara, ṇāri̇ la), jhaṛibā (kṣar-), māṛa 'striking' (māra), O. Or. *sts*. paṛidātā (paritrātā) (MBh Ai. 18 also BA etc.) maraṛā 'lavatory' (malāgāra ? (MBh U 99, RB 10th ch.), biṛojā (virajā, NC 13), āṛati (NC 29) beside āḷati (BGi) (ārātrika), khaṛa (-dhanu) (khara BrN 39), lahaṛī (laharī PP 122)

(xvii) Through deaspiration, intervocal and final -ṛh- in some cases : Or. daṛa 'firm' (dṛḍha- pk daḍha, diḍha), thaṇḍā 'cold' (stabdha- with nasal prob. from pr. stambhayati pā thaddho, pk thaddha, thaḍḍha ṭhaḍḍha cf ND p. 249) ; but J. Bloch suggests Dravidian origin) ; moṇḍa, muṇḍa, maṇḍa (mūrdhan pk muddha, muḍḍha, muṇḍha,) meṇḍā, meṇḍhā (meḍhra-, meṇḍha- 'ram'), āṛa (ardha) etc.

In some case, it remains unexplained. There it may be of *Deśī* origin, for examples,

Or. dhaṛa 'trunk' (pk dhaḍa 'trunk of body'), jaṛibā B jaṛa 'heaped' (pk jaḍia 'set'), bhiṛa 'crowd' pk bhīḍaï 'meets'), ghaṛa-ghaṛa 'rattling', bhaṛa-bhaṛa 'snuffing', bhaṛkāibā 'to become out of spirit', ragaṛibā 'to rub', rokaṛa 'cash book', koraṛā B koṛā 'whip', gaṛa 'fort' (Deś gaḍha), gaṛabaṛa confusion', geṛā: B gêṛā' stout and short', goṛa 'foot' (pk goḍḍa), ciṛibā 'to be vexed', cuṛi 'bangle' (Deś cūḍa), cauṛā 'wide', taṛataṛa 'quickly' (pkt taḍataḍā), toṛā 'leather bag full of rupees', pāhāṛa 'hill' (cf skt pāsāṇa), peṛā 'sweetmeat', poṛibā 'to burn' (pk paulaï, paullaï 'cooks'), pheraṇḍā 'he-jackal' (cf late skt pheru-), khaṛāū 'wooden sandal' B khaṛam (doubtful connection with skt kāṣṭha-pādukā -pā. kaṭṭhapādukā), jhagaṛā 'quarrel' (pk jhagaḍa), jhaṛi 'continuous rain' B jhaṛ 'storm' (Deś jhaḍī 'continuous rain') jhāṛibā 'to exorcise', jhupuṛi 'hut' (Ap jhumpaḍa), laṇḍā 'bald' cf B neṛā; laṛibā 'to fight', laṛabaṛiyā 'wavering', leṅgaṛā 'lame', haṛa-baṛa 'confusion' etc.

A large number of Oṛiyā words and verbal forms has suffix of -ṛ- which originated probably in the MIA period, for examples, Or. thoṛā 'little' (stokam pk thoḍa), phāuṛā' a long-handelled instrument for levelling a rice-field before planting' (cf skt sphyaḥ 'flat wooden instrument' Pā phiya 'oar' according to Bloch), tākuṛi 'iron pin to spinning wheel' (tarku-pa takku), kharaṛā 'slightly parched', also kharaṛibā (khara- 'hard, solid' Pā, pk khara), dauṛibā 'to run' (skt dravati), ghoṣāṛibā 'to rub' (cf gharṣati) etc.

(A) Initial Oṛiyā -ḍh- represents :

(i) OIA ḍh MIA ḍh : Or. ḍhola 'a large drum' (ḍhola pk ḍholla), **ḍhāla** 'shield' (ḍhālam pk *ḍhāllā), ḍhukibā 'to enter' (ḍhaukate 'approaches', *ḍhukyati pk ḍhukkaï), ḍhilā 'slack' (pk ḍhilla cf Deś. ḍhella 'poor', conn. improbable with skt śithila pk siḍhila cf ND p. 266), ḍhāṅkuṇī 'lid', ḍhāṅkibā (pk ḍhakkiṇī, ḍhakkaī Deś. ḍhaṁkiṇī), ḍhaḷibā 'to stumble' (pk ḍhalaï 'falls')

(ii) -ḍh- in initial position in a number of *Deśī* words : Or. **ḍhêki,** ḍhiki 'husking machine' (Deś. ḍheṁkā 'beam of a wall'), ḍhaka 'weights', ḍhaṅga 'manner', ḍhapa 'form, size', ḍher 'much' ḍhelā 'lump of earth', ḍhola 'drowsing' B ḍhul etc.

(B) Medially and Finally Oṛiyā -ḍh/ṛh- represents :

(i) OIA ḍh MIA ḍh : Or. gāṛhā 'thick, difficult' (gāḍha- pk gāḍha), āṛhi 'grain-measure' (āḍhaka pk āḍhaga), rāṛha 'name of a jungle tribe' (rāḍha, rāḍhīya- pk rāḍhā), dāṛhi 'beard' (dāḍhikā pk dāḍhiā ; the generally assumed form skt daṁṣṭrā is phonetically improbable to Turner), siṛhi 'staircase' (śreḍhī 'progression of figures', also średhī, śreḍī cf skt śreṇi pk seḍhī)

(ii) OIA -ṭ- through spontaneous aspiration or metathesis of aspiration : Or. kaṛhā 'cauldron' (kaṭāha pk kaḍāha), śāṛhī 'cloth for woman' (śāṭa-, śāṭikā pk sāḍī, sāḍiā 'garment')

(iii) OIA ṭh MIA ḍh : Or. paṛhibā 'to read' (paṭhati pk paḍhai), gaṛhibā 'to build' (gaṭhati), piṛhā 'stool, bench' (pīṭham pk pīḍhaa), O. Or. (inscr.) maḍha (maṭha) [EOLS]

(iv) OIA ṛddh MIA ḍḍh : Or. buṛhā 'old' (vṛddha pk vuḍḍha), baṛhi 'increment' (vṛddhi)

(v) OIA rddh MIA ḍḍh : Or. bāṛheni 'broomstick' (vardhanikā), baṛhibā (vardhate pk vaddhaï, vaḍḍhei), sāṛhe 'plus one half' (sārdha pk saḍḍha, saddha), baṛhei 'carpenter' (vardhaki- pk vaḍḍhaïa), aṛhāi (ardhatṛtīya, ardha-trika), deṛha 'one and half' (dvi-ardha pk divaḍḍha)

(vi) OIA ṣṭ(h) > Early MIA ṭṭh, ṭh > Second & Late MIA -ḍh- : Or. beṛhibā (veṣṭate, pk veḍḍhaï) kāṛhibā to pull' (karṣati pk kaḍḍhaï), oṛhaṇā 'woman's veil (Deś oḍḍhaṇaṁ 'outer garment' <ava-veṣṭana ? J. Bl. suggests connection with skt vahati inf. voḍhum LM p. 300, also ava-ūḍha *vide* ND), koṛha (kuṣṭha- pk koḍhaṁ), dāṛha, dāṛhā 'edge' (daṁṣṭrā, *dāṁṣṭra, *see* CDIA - pp. 357-358)

(vii) OIA ṇḍ(h) MIA ṇḍ(h) & words of obscure origin : Or. saṇḍha, saṇḍa 'bull' (sāṇḍa- 'uncastrated' pk saṇḍa), meṇḍhā 'ram' (lex. meṇḍha-, meḍhra- pk meṇḍha, meḍḍha, meṇḍa ; but Dr. Chatterjee suggests meṣa- > meha- ḍa > mheḍa cf skt bhedra *vide* ODBL p. 515), toṛhā 'squint, crooked' (*troḍḍ(h)ā, *toḍ(h)ra not explained cf ND p. 246 ; Dr. Chatterjee suggests tiryak-ardha ODBL p. 490), saṛhu 'wife's sister's husband' (perh. < *sālḍhuo < *syāli-voḍhṛ with special shortening in a word of relationship cf ND p. 598) caṛhibā 'to climb' (J. Bl. connects pk caḍaï, Geiger pkt paccaḍḍaī 'goes' cf ND p. 164, Dr. Chatterjee ascribes the aspiration of √ caṛ = √ caṭ [cṛta ?] ODBL p. 500), kaṛhi 'bud' (kali, koṣa ?), gaṛha 'fort' (cf ODBL p. 500), kuṛha 'heaps' etc.

THE DENTALS

(A) Initial Oṛiyā -t- represents :

(i) OIA t MIA t : Or. tāmbuḷa 'betel leaves' (tāmbūlam pk tambola- an Austro-Asiatic word), tela 'oil' (tailam pk tella), tintuḷi (tintilikam, tintiḍikā), tambā (tāmra pk tamba), taḷa 'bottom' (tala- pk tala), tāḷa 'toddy palm', tāṛi 'fermented juice palm' (tāla), tanta 'loom' (tantra), tuḷibā 'to weigh' (tulayati), tuḷa 'scale' (tulā), tiaṇa, tiuṇa 'curry' (temanam), tārā (tārakā), taribā (tarati), tāpibā (tapyati), tākuṛi 'iron pin in spinning wheel' (tarku-) etc.

(ii) OIA tr MIA t : Or. tini (trīṇi pk tiṇṇi), tiriśa (triṁśat pk tīsa) tera (trayodaśa), tetiśa (cf skt trayastriṁśat pk tettīsa), taṛibā 'to break' (troṭaya- pk toḍaï), tasara, ṭasara, (late skt trasara- pk ṭasara, tasara)

(iii) OIA tv MIA t : Or. turita, turanta 'swift' (tvarant, turate, tvarante pk tuvaranta, turaī), tu 'you' O. Or. tû (tvam Vedic tuvam pk tumaṁ)

(iv) OIA -y- by analogy changed to -t- in MIA : Or. tumbhe, tome, tame (yuṣmābhiḥ, yuṣme = *tuṣmābhiḥ, *tuṣme pk tumhe)

The following Oṛiyā words are of obscure origin : Or. tāga 'sacred thread' (pk tagga 'gold thread'), tāgibā 'to sew with thick cotton' cf B ṭêkā, tāmbu 'tent', tarakāri 'curry', totalā 'stammering'

Sometimes, the cases of devoicification are met with ; for examples, Or. taṇḍa (daṇḍa) 'fine' (loan from Tamil ?)

Oṛiyā shows a peculiar replacement of -t- in the place of skt -c- or, Bengali -c- : Or. tāsa (Bengali cāṣ) 'agriculture', pitāśa (piśāca> by metathesis picāśa) O. Or. utiṣṭha (ucchiṣṭa-, BA, BGi), Mod. Or. tasmā B. caśmā 'a pair of spectacles' (Pers. casm), caṣu beside tasu (tūṣa), caṣā beside tasā 'a cultivator' B cāṣā.

(B) Medial and Final -t- represents :

(i) OIA kt MIA tt : Or. bhāta (bhakta pk bhatta), chatu 'flour of parched pulse' (saktu- pk sattua), moti (mauktika-, muttia, mottia), rati 'a kind of seed used as weight' (raktikā), cirāitā, ciretā (cf kirātatikta), jutā 'shoe' (yukta pk jutta) etc.

(ii) OIA ṅkt MIA nt : Or. panti 'row' (paṅkti- pk pantī) B. pā̃ti

(iii) OIA tn MIA tt : Or. sābata 'co-wife' (sapatnī pk savattī)

(iv) OIA ktr MIA tt : Or. jotibā 'to yoke' (yoktram pk jotta)

(v) OIA tr MIA tt : O. Or. chati (EOLS) Mod. Or. chatā (chatrakam) rāti (rātrī pk rattī), kheta (kṣetram pk khetta), khaṇati 'a digging instrument' (khanitra lex. khanitrikā pk khaṇitta), sutā (sūtram pk sutta), rāuta 'a surname' (rājaputra- pk rāutta), mita (mitra pk mitta), patā (patra- pk patta), puta (putra- pk putta), māhunta (mahāmātra-), citā 'painted' (citra pk cittaa), beta (vetra pk vetta), karata (karapatra- pk karapatta), mutibā (mūtraya- pk muttaï), ārati, also āḷati 'light waved round an idol' (ārātrikam pk ārattia), boita 'boat' (vahitram), khāta 'ditch' (khātram pk khattaṁ) etc.

(vi) OIA tv MIA tt : Or. bahuta 'much' (bahutvam pk bahutta), itara 'vulgar' (itvara-, pk ittara), catarā 'round plain land', cautarā 'courtyard' (catvara pk cattara) cp B. cātāl 'paved floor' Ass catāl (but Or. caṭāṇa 'courtyard' <*catuṣṭhāna ?)

(vii) OIA ty MIA tt : Or. *sts.* niti (nitya- pk nicca, *nitta), *sts.* daïta 'demon' (daitya) cp Ass. da't

(viii) OIA ṭt MIA tt : Or. chatiśa, *sts.* chatriśa '36' (cf skt ṣaṭtriṁśat pk chattisaṁ)

(ix) OIA tt MIA tt : Or. matuāḷa 'drunkard' (mattapāla-), uturibā 'to descend' (uttarati pk uttaraï), pituḷi (puttalikā pk puttaliā), dhuturā 'the poisonous flower' (dhattūra-), pitā 'bitter' (pittam pk pittaṁ), tittira 'partridge' (tittira-), lātta, nāta 'kick' (pk lattā), utālā 'restless' (cf skt uttāpa), ete 'so much' (cf iyattaka-, iyattika pk etta, ettia), also tete 'that much', kete 'how much', yete 'as much' etc.

(x) OIA t with accent following MIA tt (*vide* ODBL p. 501) : Or. pitaḷa 'brass' (skt lex. pittalam, pītalam, connected probably with skt pīta, pīta-la pk pittala), jitibā (skt jitá > jitta cf ODBL p. 501 ; denominative from pk jitta formed in place of -jia- < jita after analogy of other past participle in -tta *vide* ND p. 217).

(xi) OIA tth : Or. tutiā 'blue vitriol' (skt tuttham) cp Ass tutiyā B. tûte ; but the aspiration is found in Nep. Kāś. P.

(xii) OIA nt, ntr MIA nt : Or. dānta (danta pk danta), sāntarā 'a surname' (sāmanta-rāja), tanta 'loom' (tantra pk tanta), tintuḷi (tintiḍikā, tintilikā), ātaṛa (antaḥ-kuṭa to J. Bl. but anta-puṭikā to S. Sen cf CGP), nimatā (nimantraka- pā nimantako), bhitara (abhyantara pk abbhintara), turanta, turita 'speedily' (tvarant- pk tuvaranta), jiantā 'living' (jīvanta pk jīvanta), pantā 'boiled rice kept in water' (Dr. Chatterjee suggests pānī-ta ; but possibly it is connected to skt pacant- for, compare Ass pāitā, B pāntā OAw paenta, payanta, paanta Bh pantā < *paYanta < pacant-), O. Or. huante, honte, hvante (MBh etc.) 'while remaining' (bhavant- pk honta cf skt bhavanti pā. pk honti) cf OAw honta (for bhavan) OB honti (bhavanti) OB honti (bhavanti) compare acchante, buṛante 'while remaining, while drowning' OMar hotê (conditional) [*see* also pp. 86-87]

Thus we find some cases where the loss of nasal in -nt- took place, such as Or. nimatā, bhitara, māhitī 'a surname' cf B māiti (mahanta, -ika *vide* ODBL p. 502) and in the locative affix and indirect object, -ta, te- (<anta, anta- hi) or, the dative post-position -tare- (antara-hi). This loss of -n- may be due to the shift of accent in the following syllable which is generally long, compare OMai dānta but data-chā (danta-kṣata) or, nimatā. Regarding Or. bhitara, the loss of nasal due to enclitic position of the word has also been noticed by Turner.

The MIA affix -anta of the present participle or the ending of present tense, third person plural are retained in Oṛiyā normally, for instances, Or. jiantā 'living', huante 'while remaining' (conditional), pāhānti, pāhānta 'day-break' (*prabhātayant-), māgantā, māgatā 'beggar', cobānti 'they chew', yāānti 'they go', āsanti 'they come' (honorific) etc.

The treatment of present participle in the eastern languages may be shown thus : Skt -ant, -ayant MIA anta, enta Or. anta, antā (adj.) but O. Or. -ta- standard Bhoj. -at, (a) tā (adj.) Ass -õt, õtā (adj) B anta, ite, ti Mai. -ita, a-at, -at OB -nta OAw -ata, anta (for āta ?) OMai -ait, aitê, compare Hindī atā, atē, -ta (in locative absolute) etc.

The treatment of -anti in third person, present plural in honorific : Skt -anti Or. anti OB anti (cf bhavanti, honti C 22) Mid B enta (cf ODBL p. 355) B -en (honorific) Bh. -î as in uhā: calî: (in optative sense, honorific) <*calaî <calanti (the expected *-at is replaced by nominal or pronominal affix -nh > -ঁ- *vide* OBDH. p. 169) OMai -thi (hõthi, hothi <ant- hi ? *vide* VRC ff 47) Mai -thi. Eastern Assamese -nta, nti (FA ff. 779), OAw -ti as in -karati- where ant> *ãt, at *vide* UVP ff 71).

(xiii) OIA pt, ptr MIA tt : Or. sāta (sapta pk satta), binati 'request' (vijñapti- pk viṇṇat(i), satara (saptadaśa pk sattarasa), satāiśa, sateiśi (saptaviṁśati), satacāḷisa '47' (cf saptacatvāriṁśat pk sīyalīsaṁ), O. Or. sutilā 'slept' (MBh) (supta- pk sutta), tātibā (cf tapta- pk tatta), nāti 'grandson' (naptṛ, napti pk ṇattiā, ṇattuā)

(xiv) OIA rt MIA tt : Or. bāta 'news', batāibā 'to inform' (cf vārtā pk vattā), bati 'lamp' (varti- pk vatti, vaṭṭi), Or. gāta (garta-), kāti 'knife' (karttrī), katurī (karttari- pk kattarī), bitibā 'to pass' (perh. skt vṛtta- pk vitta 'passed, dead' cf ND p. 442), patiāra 'trust' cf Mid B patiya *sts.* cf ODBL p. 503 (pratyaya- cf pratyayakāraka 'trustworthy' pk pattiāaī 'trusts')

(xv) OIA -st(r)- MIA tth by deaspiration : Or. bhāti 'bellows' (bhastrā pk bhatthā), O. Or. tetiśa Mod. Or. *sts* tetriśa (cf trayastriṁśat pk tettīsa), hatiāra 'weapon' (*hasta-kāra pk hatthiyāra cf skt hasta-kārya-), hāturā 'hammer' (*hasta-kūṭa)

In some words of Oṛiyā, -t- is of obscure origin : Or. chāti 'chest', cukti 'settlement', āta 'name of a furit', kuta 'letting for a fixed rental' (pk kutta), kutu-kutu 'ticklishness', kuttā 'dog' (pk kuttā), dhoti, dhuti 'loin cloth', pattā 'trace', batāsa 'wind' (connected with skt vāta-, vāyu-), sastā 'cheap', chāta 'roof' (√chad ?) etc.

(*A*) *Initial Oṛiyā -th- represents* :

(i) OIA th MIA th : Or. thuka 'spitting' (cf thutkāra, an onomatopoetic word), tharibā 'to tremble' (tharatharāyate pk tharaharia 'trembling'), thu 'spittle' (thūthū 'sound of spitting' pk thū) ; examples of these types are very rare in OIA and they are generally onomatopoetic.

(ii) OIA st MIA t (h) Or. thana 'breast' (stana, pk thaṇo), thopa 'bunch' (*stūpya cf skt stūpa pk thūva), thamāibā 'to stop suddenly' (stambhate pk thambhaī), thaṇḍā 'cold' (prob. stabdha- with nasal possibly from stambh- pk thaddha,, thaḍḍha ṭhaḍḍha), Or. thaya 'bottom' (skt lex. stāgham 'shallow' pk thāha 'depth, to Pischel sthāgha), thoṛā 'little' (stokam pk thoa)

(iii) OIA sth MIA tth : Or. thaḷa 'ground' (sthalam pk thala), thāḷā, thāḷiā 'plate' (sthālī, sthālam pk thalliā, thālī), thira 'firm' (sthira pk thira), thoibā (sthāpayati pk ṭhāvei, also pk thappia <sthāpyate), thāna 'place' (sthānam pk thāṇa), thaiḷi 'bag' (cf sthavi- pk thaiā), thibā (sthita- pk thia), thakibā 'to be tired, to oppose' cf B ṭhekāna OB thākiu, thākī OMar ṭhākaṇê Ass thāk 'remain', ṭhekā 'to encounter obstruction', thakā-thiyā 'act of stopping' Bh thākal Mai thākaba B thākā 'to stay' (sthā-, pr. *sthāti with possible extension of -akka pk thakkaī 'halts', thakka 'tired' *vide* ND p 295 ; stabdh-kṛ *vide* ODBL p. 683)

The following Oṛiyā words with initial -th- are of obscure origin : Or. thāka 'layer' (Deś. thaho 'resting place'), thāṭa 'style', 'bamboo framework for decoration' (taṣṭa- 'fashioned' Deś. ṭaṭṭiā 'screen' *vide* ND p. 250 but sthā + tra *vide* ODBL p. 491), thuṇṭā 'maimed' (pk ṭhuṇṭha 'stump' pk ṭuṇṭa 'having the hands cut off'), thaṇṭa 'beak' (troti, tuṇḍa ?), thaṭā 'joke', thāna 'piece of cloth' etc.

(*B*) *Medial and Final Oṛiyā -th- represents* :

(i) OIA tth MIA tth, ṭṭh : Or. kaïtha 'wood apple' (kapittha pk kavittha, kaviṭṭha), ethi 'here' (vedic itthā pk etthā)

(ii) OIA st(h) MIA tth : Or. hāthī (hastī pk hatthī), hatha, hātha (hasta pk hattha), pathara (prastara pk patthara), pothi (pustaka- pk potthia), mathā beside mātha (MBh U 23, RBR) (mastaka pk mathaa), natha 'nose ring' (nastaka, lex. nastā pk ṇatthā), muthā 'a particular kind of grass' (cf skt musta- pk muttha, mottha)

(iii) OIA nt (h) MIA ṇth : Or. sunthā cf O. Or sīunthi (RBh) (sīmanta pk simanta), manthā 'to churn' (cf manthati pk manthaī cf skt mathnāti), gunthibā, gānthibā 'to knot' (grantha-yati pk ganthai, gunthaṁ) *see* also p. 87

(iv) OIA rth MIA tth, ṭṭh : Or. cauṭhi, cautha 'fourth' (caturtha pk cautha), sātha 'in company with' (sārtha-, sārthena pk sattha)

(v) OIA tr MIA tth, ṭṭh : Or. yethi, yethu (yatra) 'where', keûṭhi 'where' (kutra Ap kuttha or, from skt kva-stha *vide* J. Bl. 312. a & ND p. 70)

(*A*) *Initial Oṛiyā -d- represents* :

(i) OIA d MIA d : Or. dudha (dugdham pk duddha), Or. dihuṛi 'torch' (dīpavartikā, dīpavarti), dighi 'pond' (dīrghikā pk digghiā, diggha), diā (deva pk deva), diara (devara pk devara, diara), dāṛhi 'beard' dāḍhikā), dānta (danta), dāṇḍa 'by path' (daṇḍikā), daüṛi (davara), dayaṇā 'a particular kind of flower' (damanaka-), dasa (daśa), dahi (dadhi), deuḷa (devakulam), diāḷi (dīpāvali) etc.

(ii) OIA dṛ MIA d : Or. daṛa 'firm' (dṛḍha- pk daḍha, diḍha), diṭhi (dṛṣṭi) diśe (dṛśyate), dapkibā 'to startle' (cf dṛpyati, darpati cf ND. P. 302)

(iii) OIA dr MIA d : Or. dāma 'price' (dramma pk damma cf Gk drākhmē *vide* ODBL p 505 ND p 309), doṇā 'leafcup' (droṇam pk doṇa, ḍoṇī), dauṛibā (cf dravati > *dravaḍa), dekhibā (dṛkṣyate pk dekkhaī)

(iv) OIA dv MIA d : Or dui (dve d. dvau pk duve Ap bi), duāra (dvāram pk duvāra), dusarā (Turner : dosara) compare O. Oṛ. disari 'twofold' (GBG.) (dvau pk do and -sara- 'moving' cf puraḥsara *vide* ODBL p 700), doharā 'double', dohā 'couplet', dohari 'doubled' (dvidhā with replacement of -dvi- by -do- pk dohā or skt dvidhaḥ 'in two' and dvidhātuḥ 'consisting of two parts *vide* ND p 321), O. Or. duje 'second' (Gopībhāṣā) dujā (GBG, Bh ü 32) (dvitīya-ka MIA duijjaa *duijja, *duajja *vide* ODBL p 476), deṛha (dvi-ardha pk divaḍḍha)

(v) OIA ḍ MIA ḍ : O. Or. ḍamāḷu (MBh B 6), ḍabāḷu (RB p. 71) Mod. Or. ḍamaru (lex. ḍamaru pk ḍamaru -an Austro-Asiatic word cf CDIA p. 310)

(vi) OIA dh by deaspiration : Or. duā 'burden' (dhruva), dāī 'nurse' (dhātrī ?)

(vii) OIA j, y ? : Or. deṛhaśura 'husband's elder brother' (jyeṣṭha-śvaśura ?), deṭhā, jeṭhā 'father's elder brother' (jyeṣṭha-tāta), cajibā for cadibā 'to threaten, abuse' (tarjv- *vide* Oṛiyā bhāṣāra itihāsa by Vināyaka Miśra), dacha (yaśa), danāi for skt janārdana beside Or. danārdana.

The following words are of obscure origin : Or. daṅgā 'dispute', dabāibā 'to overpower', dara 'price', dādā 'elder brother', didi 'sister', denā 'debt', duma 'fat', daladala 'tremulous', dalama 'building material' ?

(*B*) *Medial and Final Oṛiyā -d- represents* :

(i) OIA dd, dr MIA dd : O. Or. koddāḷa (MBh As. 30) Mod. Or. kodāḷa 'spade' (kuddāla pk kuddāla), khud 'small' (kṣudra), dādu, yādu 'ring worm' (dadrū pk daddu), oda, odha 'an otter' (udra pk odda), haḷadī (haridrā pk haliddā, haladda), muda 'seal' mudi 'ring' (mudrā pk muddā), nida (nidrā), adā 'ginger' (ārdra- pk adda), bhādua, bhādaba 'name of a month' (bhādrapada pk bhaddavaa)

(ii) OIA rd MIA dd (a non-Māgadhi form ? *vide* ODBL p 506) : Or. caüda (caturdaśa pk caüddasa), bādala 'rainy day' (vārdalam pk vaddala), mādaḷa 'drum' (mardala pk maddala), kudibā 'to leap' (kūrdati pk kuḍḍa), ladāibā 'to load' (late skt lardayati pk laddei), kādua (kardama), baḷada (balivarda pk balidda, baladda), adā 'ginger' (ārdra)

(iii) OIA nd MIA nd : Or. kundā 'lathe' (lex. kunda- 'lathe', kundakara- 'turner'), naṇanda 'husband's younger sister' (nanāndā pk ṇaṇaṁdā), sindūra (sindūram pk sindura, sendūra), kānde (krandati), bunda (bindu- pk bindu) cf Jn bĩdule E. Mai bũ:da Aw. bũ:d 'drop' Maj būna, bunnā, bedu Bh. bunī B. bõde 'a particular kind of sweetmeat' (*see* also pp. 82-83, 90)

(iv) OIA ndr MIA nd : Or. gonda 'gum' (gundrā pk gunda Deś guṁda 'a grass'), cānda (candra- pk canda), cānduā 'canopy' (candrātapa but to Turner, candraka)

(v) -j- : Or. nadara (Pers. nazara, cp also GBh 5th chānda stanza 50) sadaḷasa beside sajaḷasa (sarjarasa), cajibā beside cadibā 'to threaten' (tarj-)

In some cases -d- is intrusive and euphonic, viz, Or. bāndara (vānara), the intrusive -d- is found in B. Ass Nep Punj Mar Sgh but compare pk vāṇara ; pandara (pañcadaśa pk paṇṇarasa Ap paṇṇaraha) cf OMai pandraha, -he Jn paṁdharā Ass pondhara Bh panarah B pa'nera. The intrusive -d- is also found in Nep H Punj Lah S G M.

Original -d- is lost in Or. bāra (dvādaśa), beni 'two' (*dvīni), Or. dujā (dvitīya)

Oṛiyā -d- represents some words of obscure origin : Or. khāda 'refuse', khedibā 'to drive', khodibā 'to dig, to carve', gadi 'seat', dhandā 'work' dādā 'elder brother', didi 'sister' etc.

(*A*) *Initial Oṛiyā -dh- represents* :

(i) OIA dh MIA dh : Or. dhoibā 'to wash' (dhāvati, dhauta pk dhovaï, dhuvaï, <*dhūyate), dhāibā (dhāvati pk dhāvaï), dhāma (dharma pk dhama), dhāna (dhānya pk dhaṇṇa), dharibā (dharatī pk dharaï), dhāra 'edge' (dhārā), dhikkāra 'curse' (dhikkāra-), dhaṇiyā 'coriander' (dhāneyam), dhana, dhanī (dhanam, dhanika-), dhuturā 'the poisonous plant' (dhattūra-, dhūrta-), dhurā 'pole' (dhura-), dhuni, jhuṇā (dhūpana-), dhuḷi (dhūli-), dhuā:(dhūma-) etc.

(ii) OIA dhṛ MIA dh : Or. dhiṭa 'impudent' (dhṛṣṭa- pk dhiṭṭa)

(iii) OIA dhr MIA dh : Or. dhuā, duā (dhruva) 'burden of a song'

(iv) OIA dhv MIA dh : Or. dhuni 'sound' (dhvani-; to Turner skt dhunī 'roaring' pk dhuni) dhasibā 'to fall in' (dhvaṁsati pk dhaṁsaï, dhasaï, to J. Bl. ; But Turner connects to skt dhrasnāti, dhrāsayati), O. Or. dhaja (inscr.) also dhaṇḍā 'flag' (dhvaja- +daṇḍa- pk dhaya, jhaa)

(v) OIA d, dr : Or. dhusa 'a woollen shawl' (dhūsa *vide* ODBL p 506 ; But Turner connects with skt dūrśam 'garmont or cloth', dūśyam 'tent' dūṣyam 'cloth' Pā dussaṁ), dhokā 'deceit' (poss. skt drogha- cf dhrokṣyati fut. pk doha cf ND p 332 ; dhukṣ- *vide* ODBL p 506)

(vi) OIA jh MIA. jh : Or dhātikā 'quickly', also Or. jhātikā (also in CM v 66) (cf skt. jhaṭiti pk jhaḍatti, jhatti), dhaṇḍā beside jhaṇḍā 'a flag' B. jhāṇḍā ; dhapaṭa beside jhapaṭa 'to run quickly', dhiṅgāsa beside jhiṅgāsa 'rebuke', jhāsa beside dhāsa 'jump' cf B. jhā:p

The following words are of obscure origin : dhamaka 'threat', dhāpa 'step', dhimā 'slow', dhum 'noise, tumult' dhum-dhām, dhakkā 'collision' (cf dhakkayati 'annihilates'), dhakāibā 'to palpitate' etc.

(*B*) *Medial and Final Oṛiyā -dh- represents* :

(i) OIA gdh MIA ddh : Or. dudha (dugdha pk duddha)

(ii) OIA ddh MIA ddh : Or. udhāra 'debt' (uddhāra pk uddhāra), sudhā, sudhāribā 'to correct', sudhuribā 'to improve' (śuddha- pk suddha), sidhā 'straight' (siddha- 'perfected' pk siddha), pindhibā 'to wear' (pinaddha, *pinanddhati pk piṇaddha, piṇaddhaï), O. Or. śadha (śraddhā, RB p. 32)

(iii) OIA dhr MIA ddh : Or. lodha 'a particular red-stalked plant' (cf rodhra-, lodhra pk loddha)

(iv) OIA rdh MIA ddh : Or. adha (ardha pk addha, aḍḍha), caüdhuri 'a surname' (cf caturdhara- 'name of a family')

(v) OIA -d- through transference of aspiration after the disappearance of the intervening-vowel : Or. gadha (gardabha pk gaddaha)

(vi) OIA ndh MIA ndh : Or. rāndhibā (randhayati pk randhai, -ei), bāndhibā (bandhati pk bandhaï), andhāra (andhakāra pk andhaāra, andhāra), sindhi 'hole made by thieves' (sandhi pk saṁdhi), kāndha 'shoulder' (skandha pk khandha), sundha 'sweet smelling' (saugandhya- pk suandha), gandhāibā 'to stink' (gandha pk gandha), andhalā, 'blind' (andha-, andhaka, andhikā pk andha), samudhi 'a son's or daughter's father-in-law' (saṁbandha- 'connection' saṁbandhī 'related by marriage', pk saṁbandha-, -i), dhāndolibā 'to search' (adhi+hṛ ? cf Tulpule : OMR p. 215b) cf OMar dhāṇḍoḷitā: (OMR p. 33.2)

(vii) OIA bdh O. Or. lodha 'a huuter' (lubdhaka) (RB 30, ChG)

THE LABIALS

(*A*) *Initial Oṛiyā -p- represents* :

(i) OIA p MIA p : Or. pokhiri (pauṣkara pk pokkhara), pituḷi (puttalikā pk puttaliā), pīlā (pītala pk pīala Dés pīvala), piusī (pitṛ-svasṛkā), pārā (pārāvata pk pārāvaa, pārevaa), puruṇā 'old' (purāṇa-, purātana), pāliṅki (paryaṅka pk pallaṅka), O. Or. payara 'foot' (pāda, -*pada-ra pk paa), pandara (pañcadaśa) pakhāuja (*pakṣāvādya-, pakṣātodya-), pakā (pakva-), pacha (paśca), paṇḍā (paṇḍita), paṛhibā (paṭhati) etc.

(ii) OIA pṛ MIA p : Or. piṭhi 'back' (pṛṣṭi pk piṭṭhī), puchibā (pṛcchati pk pucchaï)

(iii) OIA pr MIA p : Or. pathara (prastara-pk patthara), pakhāḷibā 'to wash' (prakṣālayati pk pakkhlaḍi), paṭhāibā (prasthāpayati pk paṭṭhāvei, -aï), pariśi 'neighbour' (prativeśī ; to Turner prativāsī-pk paḍivesia), pahilā 'first' (cf. skt prathama pk paḍhama Ap pahila), paśibā (praviśati pk pavisaï), pohaḷa 'coral' (pravāla pk pavāla), pāibā 'to get' (prāpayati pk pāvaï, -ei), O. Or. pochaï 'wipes' (proñchati pk puñchati Deś puṁchaï, puṁsaï, pusaï), pelibā (prerayati pk pellaï, peraï), pahañcibā 'to reach' (pk pahuccaï, pahuppaï), païṭha 'payment' (praviṣṭa-), pekhibā (prekṣaya-), pāga, paghā 'turban' (pragraha), pahara, pahaṛa, 'watch' (prahara-), pahiyā, 'wheel' (pradhi-), pasarā 'vegetable for sale' (prasāra- cf ND but to Dr. Chatterjee paṇyaśāla-), pakāibā 'to throw' (prakrāmayati) etc.

(iv) OIA pl (IE *spl) MIA p : Or. piḷehi 'spleen'. also pilhāi (*splīhan skt plīhan pk pilibā)

(v) OIA bh : Or. pāga 'fortune' (bhāgya-) as loan from Tamil ?

The following words are of obscure origin : Or. pola, polā 'hollow' (pk polla), paisā 'one-fourth of an anna', picikāri 'syringe'

(*B*) *Medial and Final Oṛiyā -p- represents* :

(i) OIA tp MIĀ pp : Or. upujibā 'to be born, to arise' (utpadyate pk uppajjaï), upāṛibā, opāṛibā 'to uproot' (utpāṭayati pk uppāḍia <utpāṭya)

(ii) OIA p MIA pp, mp : Or. pimpuṛi 'ant' (pipīlikā), kapāḷa 'scalp' (kapālam pk kavālaṁ -an Austro-Asiatic word), upara 'up' (upari pk uppari), tepana '53' (cf skt tripañcāśat pk tevaṇṇa), O.Or. kachapa (insc.) Mod. Or. kaîcha (kacchapa, kaśyapa pk kacchava), panāi (upānah pk uvāṇahā, pāṇahā)

(iii) OIA pp MIA pp : Or. pippaḷi 'long pepper' (pippalī, pippala pk pippalī)

(iv) OIA sp MIA pp(h) : Or. bāmpha beside bhāpa, bhāmpa (bāṣpa, vāṣpa pk bappha), caüpāyā 'a four legged stool' (catuṣpāda-pk caüppaa)

(v) OIA sm MIA pph, mph : Or. chepa 'spittle' (śleṣmā pk seppha, sepha, sembhā, silimha)

(vi) OIA mp MIA mp : Or. campā (campaka pk campaa), kampibā (kampate pk kampaï), rāmpa 'scratch' (pk rampa 'shavings' rampaï, ramphaï, rappaï, ramhaï 'scrapes'), khopā 'done-up hair-knot of a woman' (RV. kṣumpa 'toadstool, bush', skt *kṣupya, *kṣumpa ? kṣupa 'bush' MIA khuṁpa *vide* ODBL p 329, 510 ; CDIA pp. 193, 194. To Turner it is of obscure origin, ND p. 129) cp B. Ass. khõpā O B khompā O Mai. ṣompā (=khompā, cf VRC p. lxi)

(vii) OIA tm MIA tt, pp : Or. āpe, āpaṇā (ātman- pk attā, appā) cp O. Aw. āpaṇa, apaṇa, apāṇa, apanī:, Mod Aw. apan, apnā Ass. āpon, āpuni Bh. āpan OB apaṇā, apaṇe B āpni, āpan Mai apane, appana

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(viii) OIA tv MIA pp : Or. chapara 'hut' (chatvara-), also Oṛiyā suffix- pa, -paṇa as in miḷāpā 'peace, reconciliation', caturapaṇa 'cleverness' paṇḍitapaṇa, dutipaṇa etc. (skt suffix tva, tvana MIA ppa cf Girnar Inscription MIA -ppana *vide* ND 509, ODBL p. 511)

(ix) OIA ṭv MIA pp : Or. chapana '56' (ṣaṭ-pañcāśat pk chappaṇṇaṁ, cha- vaṇṇaṁ)

(x) OIA rp MIA pp : Or. khapara 'tile' (karpara-'tile' lex. kharpara-'skull' <*skarpara ? pk khappara), kapūra (karpūra pk kappūra), kapā 'cotton' (karpāsa-pk kappāsa-an Austro-Asiatic word), sāpa (sarpa pk sappa), kāpaṛa (karpaṭa-pk kappaḍa), ṭapibā 'to overleap' (skt *tarpati 'jumps', *tarpayati 'moves, causes to move' CDIA p. 325), cāpibā 'to press' (*carpayati cf skt capayati 'pounds' pk cappaï 'presses' ND p. 183)

(xi) OIA pr MIA pp : Or. sipa 'shells burnt for lime' (śipre du. pk sippī), khurpā 'weeding knife' (kṣurapra- pk khurappa)

(xii) OIA py MIA pp : Or. māpa (māpya pk mappa), rūpā 'silver', rupayā 'rupee' (rūpyam pk ruppa), lipibā 'to smear' (lipyate pk lippaï), lepa (lepyam 'plastering' pk leppa 'wall'), khepa 'load', khepā 'jump' (kṣepya-, kṣepa-), thopa 'bunch' (*stūpya cf stūpa- pk thuvo), thāpibā 'to place' (sthāpyate pk thappia Ap thappi 'having placed')

The following words are of obscure origin : Or. choparā 'protest' (kṣobha ?), chāpā, chāpibā 'to imprint', chaṭapaṭa 'restlessness', gapa 'talk' (galpa ?), khāpa 'close-woven and thick' (cf pk khaṁpaṇaya 'cloth'), cupa 'silence', bāpa 'father' (pk bappa, Ap bappīkī), supāri 'betel nut', dhāpa 'step', caṭ-paṭ 'instantly', jhupuṛi 'hut', laṭpaṭ 'shaking', ḍhapa 'size', ṭipibā 'pinch', jhap 'quickness', jhāmpibā 'to jump'

(*A*) *Initial Oṛiyā -ph- represents* :

(i) OIA ph MIA ph : Or. phula (phulla pk phulla), phaḷa (phala-), phaguṇa (phālguna, phagguṇa), phagu 'red powder' (phalgu), phāḷa 'strip' (phāla- pk phāla), pheṇa (phena), phuṅkibā 'to blow' (cf phutkaroti pk phukkaï), phaṇā 'the hood of a snake' (phaṇa-), phā:ki 'deception' (phakkikā), phaḷi 'arrow head' (phalakam), phulibā 'to expand' (phullati)

(ii) OIA *sp MIA ph : Or. phāśa, phāśi (*spāśa, pāśa cf ND p 404; but S. Sen suggests for B phā:s, a contaminated form phā:da+pāśa), phera 'again', pheribā 'to change' (*sperayati caus. of *spirati <IĒ spə̄re cf ND p406, 410)

(iii) OIA sph MIA ph : Or. *sts.* phoṭakā 'boil' (sphoṭaka- pk phoḍaa), phoṛibā 'to break' (sphoṭayate pk phoḍei), *sts.* phuṭana 'boiled oil or ghee for seasoning curry' (spnoṭana), *sts.* phiṭikari (sphatikāri), phuṭibā 'to burst out' (sphuṭyate pk phuṭṭaï), phāṭibā 'to split' (*sphāṭyate, passive of sphāṭayati pk phaṭṭaï), phāuṛā 'a long handelled instrument for levelling a rice field before planting' (sphya- 'flat wooden instrument pā phiya 'oar'; but Dr. Chatterjee suggests a possible connection with -parva-), phāu 'a small quantity given gratis with purchase', compare O. Oṛ phāi 'big, much' (CMī iv, 11) (*sphāta, sphāti- pk phāi, phāya), phāṛibā 'to split' (cf sphāṭayati pk phāḍei, phālei), phiṭibā 'to get loose' (*sphiṭyate pass. of *spheṭayati ? pk phiṭṭaï 'falls, is broken'

(iv) OIA -p- through aspiration : Or. phaṛiṅga (lex. phaḍiṅga, pataṅga pā paṭaṅgo), phārasā 'a fruit' (pāruṣaka-, paruṣa- pā phārusako, pk pharusa), O. Or phārasā, mod. Or phārsā (paraśu NC 4th ch) 'an axe'

The following words are of obscure origin : Or.pha(k)kā 'light in colour', cp B. phikā 'pale' ; phaskā 'loose', phuslāibā 'to entice', pheraṇḍā 'he-jackal' (late skt pheru-), phampā 'hollow' cp B phā:pā, phitā 'lace' etc.

(*B*) *Medial and Final Oṛiyā -ph- represents* :

(i) OIA ṣp MIA pph : Or. bāmpha (bāṣpa-, vāṣpa pk bappha)

(ii) OIA rbh through devoicification ? Or. ḍempha (darbha ?), B ḍêph (Midnapur dialect) Mai ḍephani Ass ḍem ḍeukā 'a kind of herb' ?

(A) Initial Oṛiyā -b- represents :

(i) Or. baḷada (balivarda- pk baladda), bahuta 'much' (bahutvam pk bahutta), bāndhibā (bandhayati pk bandhāvei), bāha 'arms' (bāhu- pk bāhu m. bāhā f), bāhiṛi beside bāhāra (cf bahi- pā. pk bahiro, bāhiraa), bela (bilva- pk bella)

(ii) OIA -v- MIA v : Or. baṅkā (vakra- pk vakka, vaṅka), bakaḷa (valkala- pk vakkala), bachā (vatsa- pk vaccha), baṛhei 'carpenter' (vardhaki- pk vaddhaia), bāñjha (vandhyā pk vañjhā), bā 'wind' (vāta- pk vāa.), baṛhibā (vardhate pk vaḍḍhaï, -ei), bohū (vadhū- pk vahū), beṛhibā (veṣṭate, voṣṭayati pk voḍḍhai),

(iii) OIA vr, br MIA v, b : O. Or. bije (MBh. etc.) (vrajati pk vayaï) O. Or. bāmuṇa (EOLS p. 114) (brāhmaṇa- pk bamhaṇa, bambhana), bolibā (cf bravīti *vide* ODBL p. 512 cf skt bahu-bollaka 'talkative' pk bollaï *vide* ND p. 461. But J. Bl. suggests Dravidian origin : also skt √valh 'to speak' *vide* OMR p. 228)

(iv) OIA vy MIA v : Or. bāgha (vyāghra- pk vaggha), bakhāṇibā, bakhāṇa 'narration' (vyākhyāna- pk vakkhāṇa), beṅga 'frog' (vyaṅga- 'speckled' lex. 'frog', but the relationship is not clear *vide* ND p. 462), Or. bāhuṛibā 'to return' (vyāghuṭati), Or. beborā 'a surname' (vyavahāraka- 'trader' pk vohāra 'voyage'), becibā 'to sell' (pk veccaï, viccei connection with skt vyaya- ? *vide* ND p. 455 and ODBL p. 471), biñcā 'act of fanning', cf chiñcā-biñcā (vyajana-), begara 'without' (skt vyagra 'distracted' ? ND p. 455) *sts.* bathā (vyathā), beusā 'business' (vyavasāya) cp. Ass. behā B. baeosā, *sts.* baebsā

(v) OIA vṛ MIA v : Or. beṇṭa (vṛnta pk voṇṭa), baṛhi 'increase' (vṛddhi), buṛhā 'old' (vṛddha- pk buḍḍha), bichā (vṛścika- pk vicchia, viñchia), bitibā 'to pass' (perh. vṛtta- 'turned, passed, dead' pk vitta 'passed'), buka 'breast' (perh. skt vṛkkau, vṛkyau du. 'kidneys' lex. bukkam 'heart' pā vokkaṁ 'kidney')

(vi) OIA p. Second MIA -v- (cf ODBL p. 513) : Or. basibā (upaviśati to J. Bloch and Dr. Chatterjee, but Turner suggests skt vasati pk vasaï), vi 'also' (api pk vi), baïṭhī 'container of pots' (upaviṣṭa pk uvaïṭṭha ?)

(vii) OIA dv MIA (Non-Māgadhī) -b- cf. ODBL p. 513 : Or. bāiśa, bāiśi (cf dvāviṁśati- pk bāvīsaṁ Ap bāisa), bāra (cf dvādaśa pk bārasa, bāraha), O. Or. bābana, bāana, bāuna (MBh. D. p. 129) Mod. Or. bāna, O.Or. batiśa Mod. Or. *sts.* batriśa (cf skt dvātriṁśat pk battīsaṁ), Or. beni (*dvīni pk beṇṇi)

(viii) OIA m MIA m : Or. baüḷa (mukulam, makūlaka- pk maüla)

The following words are of obscure origin : Or. baka-baka, bakibā 'to prattle' (pk bakkara 'laughter'), bābu 'gentleman', borā 'sack', borā 'bad' etc.

(B) Medial and Final Oṛiyā -b- represents :

(i) OIA ḍv MIA bb : Or. chabisa '26' (cf ṣaḍ-viṁśati- pk chavvīsaṁ Ap chavvīsa)

(ii) OIA mb MIA mb : Or. simba, sima 'beam' (śimba- pk simbā), tumbā 'a large dried gourd' (tumba-, -ka pk tumba Deś tumbī—an Austro-Asiatic word), tāmbuḷa 'betel' (tāmbūlam pk tambola—an Austro-Asiatic word), cumā, cumbibā 'to kiss' (cumba- pk cumbaï), lambā 'long' (lamba- pk lamba), kambaḷa (kambala pk kambala—an Austro-Asiatic word) nembu, lembu, 'lemon' (lex. nimbūka-), nimba (nimba-) *see* also pp. 82, 90-91

(iii) OIA mr MIA mb : Or. tambā (tāmra- pk tamba), āmba (āmra pk aṁba)

(iv) OIA ml MIA mb : Or. āmbiḷa (amla- pk ambila)

(v) OIA rb, rv MIA bb, vv : Or. gobara 'cowdung' (gorvara- pk govara, govvara), sābaḷā (skt lex. sarvalā pk savvala, sabbala 'spear'), cibāibā 'to chew' (carvayati pk cavvia 'chewed'), sabu (sarva- pk savva), duba 'a particular kind of grass' (dūrvā- pk duvva, duruvvā-) cp Ass. dubari ; ābu (arbuda) cp B. āb ; dubulā 'weak, emaciated' (durbala pk dubbala) cp Ass. dubalā B. dublā *see* also CDIA p. 368

(vi) OIA mbh MIA mbh through deaspiration : Or. khamba 'pillar' (skambha- pk khambha), ācambita 'astonished' (*ācchambha 'rigidity, fright' ? cf pā chambheti 'is stiff with fear' cp skt (ā)skabhnāti cf ND p. 7, IE * sqembh, also ODBL p. 314)

(vii) OIA -v- in *sts.* : Or. nabe '90' (navati- pk naüiṁ pk navuti ; from skt *navva where the doubling of -v- due perhaps to need for further differentiating the word from nava.) ; Or. dhobā 'washerman' (MIA *dhovva pk dhuvvaï skt dhuvati).

(viii) OIA p > W > b : Or. ābara beside āhuri (apara), labaṇī beside lahuṇī (navanīta), ṭhāba beside ṭhāî (sthāma) bhādaba beside bhādua, bhodua (bhādrapada) cp Mai bhādaba *see* also pp. 61-62, 64

The following words are of obscure origin : Or ghābarā 'confused', baṛabaṛa 'grumble' (Deś baḍabaḍaï 'laments'), gaṛabaṛi 'confusion', dabāibā 'to overpower', laṛabaṛiyā 'wavering', haṛabaṛa 'confusion', ghumbaṭa 'veil' B ghomṭā H ghû:ghaṭ, Or. tāmbu 'tent', ḍibā 'small casket', ḍubibā <* buḍḍa 'to sink', dabkibā 'to startle' (skt dṛpyati, darpati 'is arrogant?)

(A) Initial Oṛiyā -bh- represents :

(i) OIA bh MIA bh : Or. bhika (bhikṣā, pk bhikkhā), bhikārī (bhikṣācara- pk bhikkhāyara, bhiccbara), bhaṇḍāra (bhāṇḍāgāra- pk bhaṇḍāāra, bhaṇḍāra), bhādua 'name of a month' (bhadrāpada- pk bhāddavaa), bhala (bhadra lex. bhalla 'rustic' pk bhalla), bhiṇoi 'elder sister's husband' cp B. bonāi Ass. *bainā*i (cf bhaginīpati pk bhaïṇivaï), bhuî (bhūmi pk bhumi), bhaüṇi (bhaginī pk bhaïṇī, bahiṇī) cp B. bon Ass. bhanī

(ii) OIA $\overset{h}{b}$ MIA b through metathesis of aspiration : Or. bhuk 'hunger', also bhoka, bhoki (bubhukṣā pk bubhukkhā, buhukkhā Deś bhukkhā), bhula O. Or. bhoḷa (MBh Ai. 15.) bheboḷā (MBh B. 39) (vihvala ? To Turner *bhulyati pk bhullaï, bhulla 'is flicked off' cf. luhaï 'wipes off' <lubhaï <bhulati ? *vide* ND p. 481 but Dr. Chatterjee suggests skt bhrama + MIA -alla, -ulla ; also skt bhraṁś *vide* OMR p. 231), bhusi 'husk' (buṣa),

bhāmpa, bāmpha (bāṣpa, vāṣpa pk bappha) O. Or. (inscrs.) : bhiāṇa (vidhāna), bhairo (bahir) cp. mod. Or. bāhāra ; O. Or. bhūa (vyūha, RBh) [*see* also p. 138].

(iii) OIA bhy MIA bbh : Or. bhitara (abhyantara pk abbhintara), bhijibā 'to get wet' (abhyajate, 3. pl. abhyañjati pā abbhañjati)

(iv) OIA bhr, bhṛ MIA bh :
Or. bhāi (bhrāta, bhātṛkā- pk bhāi, bhāia), bhāuja 'sister-in-law' (lex. bhrāturjāyā Deś bhāujja), bhaãra (bhramara- pk bhamara), bhāsibā 'to float' (bhraśyati pk bhassaï), bhuja 'parched rice' (*bhṛjjita cf skt bhṛjjati pk bhujjia), bhaṭā 'ebb-tide' (bhraṣṭa- pk bhaṭṭha)

The following words are of obscure origin : Or. bhakabhaka 'chatter', bhaṛabhaṛa, 'fuzz', bhakuā 'blockhead', bhaṛakibā 'to take fright', bharasā 'reliance', bhusi (pā, pk bhusa) 'chaff', bhora 'dawn', bhiṛa 'crowd' (pk bhīḍaï 'meets'), bheṭibā (pk bhiṭṭijjaï, bhiṭṭā 'present')

(B) Medial and Final Oṛiyā -bh- represents :

(i) OIA rbh MIA bbh : Or. nibhibā, caus. nibhāibā 'to extinguish' (*nirbhavati 'disappears' *nirbhāvayati cf skt nirbhūta *vide* ND p. 346 but nirvāpayati *vide* ODBL p. 516), gābhila 'pregnant' (garbha, garbhiṇī pk gabbha, gabbhiṇī) also Or. gāb(h) ina, B. gābhin Ass. gābhini 'pregnant', gāb 'pregnancy' *see* also CDIA p. 217

(ii) OIA bhr MIA bbh : Or. ābha ? (abhra) cf B ābh 'light cloud', ābhchā 'hazy' Jn ābhāla 'sky' Or. abha, ābha 'mica' (abhra pk abbhaya) *see* CDIA p. 25

(iii) OIA rdhv MIA bbh (non-Māgadhī) cf ODBL p. 515 : Or. ubhā 'erect' (ūrdhva- pk ubbha)

(iv) OIA hv MIA bbh : Or. jibha (jihvā pk jibbha) O. Or. jibhyā (SNG. 14) ; O. Or. bebhaḷi (RM. 71) bebhaḷa (Kaḷaśā), bibhaḷita (MM 59) etc. *stss.* for skt vihvala cp. Ass. bibhol 'confused' B bibhal

(v) OIA b, v through metathesis of aspiration, mainly in *stss.* ; Or. *sts.* bibhā (viváha), *sts.* bebhāra (vyavahāra pk vohāra), O. Or. nirbhā (nirvāha, MBh. As. 20).

(vi) OIA sm MIA mh with -b- glide in NIA : Or. āmbhe 'we' beside āme (Vedic asme, asmābhiḥ pk amhe, amhehiṁ Ap amhehiṁ), tumbhe beside tame (*tuṣme and *tuṣmābhiḥ for yuṣme and yuṣmābhiḥ pk tumhe) Or. umbhei 'brazier' (cf. uṣma pk. umha) *see* also p. 191.

(vii) OIA mbh, ṃbh MIA mbh : Or. sambhāḷibā 'to keep carefully' (saṁbhālayati pk saṁbhālaï), kumbhira (kumbhīra- pk kumbhila), gambhāri 'a kind of plant' (gambhārikā), kumbhāra (kumbhakāra pk kumbhāra, kumbhāāra), khambhāra 'farm house' (*skambhākāra cf skt skambha pk khambha), jambhira 'a kind of acid plant Ass jāmīr (jamb(h)īra- pk jambīria) *see* also pp. 82-83,91.

Oṛiyā -bh- in the nasal conjunct -mbh- is seen to be deaspirated in many cases, for instances, Or. khamba 'pillar' (skambha pk khambha) cp. OB khambhā-ṭhāṇā, Mai. khāṁhī, khāmha Bhoj. khambiyā, khambhā Aw. khambhā ; Or. ācambit 'astonished' (*acchambha 'rigidity, fright' cf. pā chambheti 'is stiff with fear' cp. Skt. (ā)skabhanāti cf. ND p. 7, IE *sqembh, also ODBL p. 314). [For the similar development in OIA *see* Attindische Grammatik Band I : Wackernagel ff 109]

(viii) OIA dbh MIA bbh : Or. acābuā 'with an idiotic expression, terrored' O. Or. acābhuā (DR) 'astonished' (skt atyadbhuta pk accabbhua) cp. Ass. ācābhuwā, ācahuwā 'strange' B. āoābhuyā 'wonderful, wonderstruck' ; Or. ubhāribā 'to raise, lift' (udbharati, *udbhārayati 'causes to raise', *udbhṛta, udbhaṭa Pā. ubbhata pk ubbhaḍa, ubbhālia *vide* ND p. 95) cp. B ubhe/upe yāoyā 'to disappear'; Or. ubhujibā, ubhujāibā 'to fry wet rice' (*udbhṛjjati 'fries' <√bhrajj-. *vide* ND p. 96).

(ix) OIA hm MIA mh through glide -b- : O. Or. brāmbhaṇa (EOLS, 18A/5, 53/6, 34/3), also bāmuṇa (EOLS p. 114) cp. Mai. bābhana Bhoj. (mahā-) bābhan Aw. bā:bhan, bāmhan B. bāmun, bāmon Ass. bāmuṇ (*see* also p. 192).

(x) OIA rb, rv MIA bb, vv through spontaneous or transferred aspiration : O. Or. marbhuta (MBh. U. 89, B76) beside marbuda 'one hundred million' (arbuda, arvuda); Or. libhibā 'to extinguish' (nir-vā-, nir-vahati pk. nivvahai) cp. B. nibhāna, nibāna (*see* also p. 182) ; O. Or. sabhuā (EOLS 3/6) cf. sabua (3/10), sabuheṁ (11/5), sabuho (24/4, 36/7), sabiheṁ (42/5) for mod. Or. sabhie, sabu 'all' (sarva pk. sabba, + -hi, or, after the analogy of sabhā ?) cp. B. Ass. Aw. sab Mid. B. sabha Bhoj. sabh Mai sabha.

(xi) OIA bhy MIA bbh : Or. labhibā 'to get' (labhyate), lābha 'profit' (labhya)

The following words are of obscure origin : Or. bhaka-bhaka 'chatter', bhaṇabhaṇa 'fuzz', bhaṛabhaṛa 'snuffing' (cf skt bhaṭbhaṭāyate 'snuffing') etc.

THE OIA NASALS

All the five class nasals of Sanskrit are retained in Oṛiyā orthography (as in other eastern languages); but, in point of articulation, they are reduced to four only, viz., ṅ, ṇ, n and m as against Bengali, Assamese, Bhojpurī and Maithilī ṅ, n, and m. In *tss.* and *stss.* skt. *anusvāra* figures, but it has a -ṅ- pronunciation now as in Assamese and Bengali. In Bhojpurī, before -h- and -w- which changed to -b-, *anusvāra* became generally -ṅ- and -m- respectively, e.g. Bhoj *sts.* siṅh (siṃha), samād for sammād (saṃvāda) (cf ODBH. ff 135). In Maithilī too, *anusvāra* followed by s, ś and h in skt. became -ṅ- and with sibilants only, also -n-, e.g. Mai. bansa, baṅsa (vaṃśa) (cf FM ff 101 p. 111).

In Oṛiyā, *the pronunciation of -ṃ-* as already mentioned, is -ṅ-. Besides, the -ṅ- somewhere in *sts.* words has become -W~ > û (as in māûsa, bāûśa < māW~asa, bāW~aśa for māṃsa, vaṃśa), a nasal glide as found in Marāṭhī (cf Mar. sawāsāra for saṃsāra). In the district of Puri, the pronunciation of -ṃ- as -n- before sibilants is also heard which is perhaps a pedantic tendency after the north Indian style (for example, bansa in Puri district for vaṁśa). Besides, -ṃ- is heard to be pronounced as a mere nasalisation of the preceding vowel in Cuttack district (cf prasāsā=praśaṃsā) [for the detailed discussion *see* pp. 94-99].

The two nasals, ṅ and ñ, occurred only before their corresponding class consonants in OIA. In MIA -ñ- occured initially and -ññ- intervocally as a result of the simplification of consonant groups with nasals, e.g. Pāli ñāṇa (jñāna), añña (anya), but -ṅ- did not occur initially, neither are -ñ, ṅ- and -ṅṅ- found intervocally.

In Modern Oṛiyā, -ṅ- is met with always as a member of the cluster sound in intervocalic position (as in āṅka for aṅka; siṅgha for siṁha etc.); and never as -ṅ- alone as in Bengali, Assamese, Bhojpurī and Maithilī in intervocalic and final positions.

OIA single intervocal -m- > MIA W~ is reduced to *nasalisation with or without glide element* (usually without the glidic -W- being shown), e.g. Or. caāra (camara), kaāḷa (komala), kuāra (kumāra) etc. There is also loss of this nasalisation from -m- in some words, e.g. Or. kādua (kardama), punia (purṇimā) O. Or. punei (inscr.) (paurṇamī) etc. The reverse process of nasalising spontaneously a -W- sound either original (i.e. < -v- in skt) or derived (e.g. from -p- of OIA) is also found in *tbhs.* viz., Or. kuā for kūpa, diā for deva etc. (For the detailed treatment *see* pp. 103-105).

The -ñ- sound in Oṛiyā -ñ- is used for the nasalised palatal glide (Y ~) which after all is acoustically not very much different from the palatal -ñ-. In the modern orthography of Oṛiyā, -i- has taken the place of -ñi-. Thus Or. bhuî for *bhuñi, sāî for *sāñi (=bhumi and svāmī in skt.) etc. are fouud.

In tho earlier documents of the eastern languages except Oṛiyā, the -ñ- letter was met with to denote nasalisation, -y~ -or- -W~- (cf. Mid B gosāñi for skt gosvāmī-. Early and Middle Assamese kuñari for kumāri, OMai (VR) pañu for padma); but in Oṛiyā this letter had never occurred in the earlier inscriptions (cf Tripathi : EOLS p. 61). On the other hand, the nasalised -y- for -ñ- was met with in the example -bhuyāṁkara- (compare Beng. Ass bhuñā, bhuiñā) (Srinagar stone pillar inscr. of 16th century: OHRJ vol. VI pt. 4 p. 227).

In Oṛiyā, -ñ- occurs in *sts.* words with palatals but it differs little acoustically from the alveolar -n-. Thus Oṛiyā āñcaḷa for skt añcala is heard as āncaḷa, etc.

The sound-ṇ- in Oṛiyā : Cerebral -ṇ- is absent in modern Bengali, Assamese, Bhojpurī and Maithilī, though the letter for -ṇ prevails there in orthography. But, in modern Oṛiyā, the sound is as distinctive as Oṛiyā -ḷ- as against the other eastern languages. Generally speaking, every intervocalic -ṇ- in Pkt. becomes -n- in Oṛiyā (*see* also p. 186). Dr. Chatterjee is of opinion that the sound -ṇ- existed in Old and Middle Bengali to the end of the 14th century ; but there was a general confusion in its employment as a preliminary to its disappearance from speech (ODBL ff 286). In the *sts.* development of -ṣṭ- from Skt ṣṇ or the half-nasal and the cerebral -ṛ- in Bengali (as in kesṭo for kṛṣṇa, bisṭû for viṣṇu, khõṛā < pk khaṇṇa), cerebral -ṭ- has been substituted to represent the cerebral -ṇ-. (The History of Bengali language : B. C. Majumdar p. 92).

Where -ṇ- occurs in conjunction with a cerebral consonant, it is acoustically not different from the alveolar -n-, though with a more curling of the tongue. Thus, Oṛiyā bhaṇḍāra is heard always as bhanḍāra (bhāṇḍāgāra-).

It should be noted that though -ṇ- is a peculiar and important phoneme in Oṛiyā, it is always so in the standard dialect. In the sea-board districts of Orissa, and in the eastern Garjat States, -ṇ- is pronounced with considerable distinctness. But the western dialects, or, in the Sambalpur tracts, the sound is replaced by dental -n-. (The History of Bengali language : B. C. Majumdar p. 91 ; also The Evolution of Oriya language and script : Tripathi p. 216.)

Regarding *the aspirated nasals, -nh- and -mh-*, both exist in modern Oṛiyā, Maithilī, Bhojpurī and Awadhī alike. But in the present form of Oṛiyā, -mh- is very rare, usually developing into -mbh-, or, losing the aspiration [cf. Or. umheibā 'to lit (fire)', um(b)hei 'brazier' (uṣma-) ; Or. āme, āmbhe < *āmhe (Vedic asme, skt asmābhiḥ) etc.]. Bengali and Assamese have lost the aspiration in both the cases, (*see* pp. 189-190, 191).

A NOTE ON OṚIYĀ -ṇ-

The retroflex -ṇ- in Oṛiyā is a distinctive sound in contrast to Bengali, Assamese, Bhojpurī, Maithilī, Awadhī and Magahī which lack in this sound, though the orthography permits it. All these languages show the pronunciation of -ṇ- as alveolar -n-.

But at present, the retroflex -ṇ- occurs in other different languages of NIA, as in the Himalayan languages of central and western Pāhāṛī (*see* LSI vol. I pt. I p. 182), Pañjābī, Lahndā, Sindhī, Rājasthānī, Gujrātī and Marāṭhī. The sound also occurs in Pasto which is an Iranic language (cf. Cerebralisation in Sindhī : Turner, JRAS 1924).

Historically, the sound -ṇ- occurred in the whole range of OIA ; of course, a thorough transference of OIA -n- to -ṇ- in MIA even in initial position, seems to be an orthographic habit and nothing else. Generally speaking, every intervocalic -ṇ- in pkt. becomes -ṇ- in Oṛiyā while -ṇṇ- in pkt. becomes -n- in Oṛiyā.

The distinction between -n- and -ṇ- is maintained in all the Oṛiyā inscriptions as in the modern time, and there is no confusion in spelling with regard to -n- and -ṇ- (Tripathi : EOLS, pp. 120-121). In Oṛiyā, -ṇ- does not occur initially (*see supra*).

Medial and Final Oṛiyā -ṇ- represents :

(i) OIA jñ MIA ṇṇ : Or. rāṇī 'queen' (rājñī pk raṇṇī, rāṇī, rāṇiā)

(ii) OIA ṇ MIA ṇ : Or. śuṇibā 'to hear' (śṛ-ṇo-), O. Or. loṇa (RM p. 62) Mod. Or. luṇa (lavaṇa), māṇika (māṇikya), bhaṇibā 'to say' (bhaṇati), bāṇa 'an arrow' (bāṇa-), baṇiyā 'merchant' (vāṇija-), buṇibā 'to weave' (cf. skt vānam 'weaving' pā vināti pk vuṇaṇa pā form <*vunāti), nahuruṇi 'nail cutter' (*nakha-kara *vide* ND ; nakha-haraṇikā *vide* ODBL), ḍāhāṇa (dakṣiṇa), caṇā 'grain' (caṇaka-), ghāṇī 'oil press' (ghātani *vide* ND p. 337 ; ghrāṇikā cf. ODBL), guṇibā (guṇaya-), gaṇibā (gaṇaya-), kaṇā 'one-eyed' (kāṇa-), kiṇibā (krīṇā-), kāṅkaṇa 'bracelet' (kaṅkaṇa-), māgaṇa, māguṇi 'begging' (mārgaṇa-), araṇā 'wild buffalo' (āraṇyaka-), aṇā 'one anna' (*āṇvaka cf. aṇu 'small' āṇava- 'minute' cf. ND), beṇi (*dvīṇi), kahuṇi 'elbow' (kaphoṇi), kāhāṇa (kārṣāpaṇa), chāṇibā 'to sift' (*kṣāṇayati, kṣaṇoti 'hurts').

(iii) OIA n MIA ṇ : Or. siṅghāṇi 'mucus discharged from the nose' (lex. śiṅghāna-), hāṇibā 'to strike' (*hānayati cp. hanti, hanati), sāṇa 'whetstone' (śāna-), *sts.* śāguṇā (śakuna-), O. Or. labaṇī (Gopībhāṣā etc.) Mod, Or. lahuṇī (navanīta-), rasāṇa 'substance for polishing metal' (rasāyana), masāṇi (śmāśāna), mũhāṇa 'junction of two rivers' (*mukha-ayana-), bhauṇī 'younger sister' (bhaginī), bhiṇoi (bhaginīpati-), bhāṇiji, bhaṇajā, bhaṇañjā (bhāgineya-), belaṇā 'rolling pin' (vellanam), biāṇa 'birth' (*vi-jāyanam cf. vijāyati), bichaṇā

(vicchādana-), baṇa (vana), bakhāṇa 'narration' (vyākhyāna-), pheṇā (phena), *sts.* phuṭaṇa (sphoṭana), phaguṇa (phālguna), puṇi 'again' (punaḥ), puruṇā (purātana-, purāṇa-), pāṇī (pānīyam), pāṭaṇā 'a village' (pattanam), naṇanda 'husband's sister' (nanāndā), dhaṇiā 'coriander' (dhāneyam), dāuṇi 'a rope for tying bullocks' (dāmanī), dayaṇā 'a kind of flower' (damanaka), tiuṇa, tiaṇa 'curry' (temanam), gahaṇā 'ornament' (gahanā), chāuṇī O. Or. chāeṇī (MBh B.97) chāêṇī (Bh. i, 75) (chādanikā), cheṇi, 'an instrument for cutting' (chedanam), jaṇa, jaṇe 'someone' (jana-), jāṇibā (jānāti), juṇa 'a kind of grass' (yūnam 'cord'), jiṇibā (jināti), ṭāṇibā (tānayati), kāhāṇī (kathānikā), kaaṇa, kauṇasi, kaṇa, koṇasi 'who, some' (kaḥ punaḥ), O. Or. kaṇaya (MBh) (kanaka), āpaṇa 'self' (ātmana-), maṇiṣa (mānuṣa), agaṇā 'courtyard' (aṅgana) ; also the numerals, ūṇaṣāṭhi, '59', uṇañcāsa O. Or.a ṇacāśa, aṇañcāśa '49' ; unacāḷiśa '39' (ūna-), juāṇī (yamānikā), ḍāāṇī (ḍākinī).

Besides the numerals, Oṛiyā -ṇ- takes an important role in the formation of suffixes, feminine and others, viz., kāndaṇā 'crying' (krandana), rābiṇa 'shouter', mardapaṇiā, -paṇa (-tvana), bāghuṇi f. gāiṇā 'singing', keuṭuṇi f. māḷuṇi (mālinī) rahaṇī 'residence' etc.

Even -ṇ- in verbal affixes are not infrequent, viz. uṭhuṇu (absolutive,), helāṇi 'became', delāṇi 'gave', heuṇu (absolutive) and also in adverbs, teṇu 'for that' eṇikí teṇiki 'this way and that', eṇe 'now' etc.

An intrusive -ṇ- is found in many Oṛiyā words which may be relics of some historical influences : for examples,

Or. āṇṭhu 'knee' (asthi ? 'bone' pā aṭṭhi), Mid B ā:ṭu B hā:ṭu Ass ā:ṭhu compare Bh ā:ṭhī 'stone of fruit' Mai ā:ṭhī ; Or. ṭhuṇṭha 'maimed' B ṭhûṭā (pk ṭhuṇṭha 'stump pk tuṇṭa 'having the hands cut off') ; Or thaṇṭa (also in MBh U 114) (skt lex troṭi 'beak' with the influence of tuṇḍa ?) cf. Ass B ṭhõṭ Mai ṭhõṭha Bi ṭû:ṛ 'beard of wheat' ; Or. thaṇḍā 'cold' (stabdha. with the nasal from stambh ? pk thadda, thaḍḍha, ṭhaḍḍha) cf. Jn ṭhaṃdhā Mai ṭhāṛha, ṭhaṇḍhā Aw ṭhaṇḍ B ṭhāṇḍā ; Or. māṇḍiā 'alcoholic drink' ? (maḍaka-) cf. Ass maruwā (Dict. by Sharma p. 749) Bi maṛūā ; Or. moṇḍa, maṇḍa (mūrdhan with muṇḍa ? pk muddha, muḍḍha, muṇḍha) cf. Jn muṁde Mai mû:ṛ a Bh mõṛ Ass mūr B muṛā, moṛ ; Or. aiṇṭhā, also aîṭhā (āmṛṣṭa- cf. mṛṣṭa 'rubbed' pā maṭṭho, maṭṭo pk maṭṭhā) cf B êṭo Mai āiṭha, niraiṭha (nirāmṛṣṭa-).

In the nasal conjuncts of -ṇ- i.e. in the group ṇt(h), ṇd(h), -ṇ- is pronounced always as dental. For the treatment of conjuncts *see* pp. 86,89.

The following words are of obscure origin : Or. khuṇṭā 'peg' (pk khuṇṭa), ghuṇṭi, 'cloth button', ruṇḍa 'crowd', bhaṇabhaṇa 'buzz', laṇḍā 'bald' cf. B neṛā ; ṭāṅgaṇa 'large pony', tuṇā 'witchcraft', nikhuṇa 'faultless', dāṇṭibā 'to check', āṇṭa 'pride', cāṭuṇī 'sauce', caukhuṇṭā 'square', jhāpaṇā 'lid, cover', piṇḍā 'calf', khaṇḍuā 'shawl'.

(*A*) *Initial Oṛiyā -n- represents* :

(i) OIA n MIA ṇ : Or. naa, na' (nava pk ṇava), nāḷi 'a kind of flower' (naipālī to Turner, navamallikā cf. ODBL p. 409, nipāvalī cf. EAw by Saksena p. 71), nāã: (nāma-), O. Or. nāba Or. nā (nāvā pk nāvā), nāti (naptṛ, naptī), naibā 'to bend' (namati), naḷi 'tube' (nalikā), nahuruṇi (*nakha-kara *vide* ND, nakha-haraṇikā *vide* ODBL), nabo '90' (navati-), naṇanda (nanāndā), natha 'nose ring' (nastaka), nāhi 'navel' (nābhi), nida (nidrā), nouḷa 'mongoose' (nakula), neuṭibā 'to turn back' (nivartate).

(ii) OIA nṛ MIA ṇ : Or. nāca, nācibā (nṛtya-, nṛtyate pk ṇacca, ṇaccai), naṛa-naṛa 'shaking' (nṛtamāna pr. part. cf. skt. nṛtuḥ 'dancer', naṭa- 'actor' pk ṇaḍa).

(iii) OIA sn MIA ṇ(h) : Or. nāpita (nāpita-, snāpaka- pk ṇhāvia, ṇāvida), snāhāna 'bathing' *sts.* (snāna pk ṇhāi or, a contaminated form of snāna and *tbh* ṇāha *vide* Bull. of Phil. Society Cal. 1959 I.i)

(iv) OIA jñ pk ṇ Or. nāpibā (jñāpyate pk ṇappai 'knows') cp. Mai. Aw. nāpab Aw. nāp 'measurement', H nāpnā (*see* CDIA p. 291)

Initial -l- in Oṛiyā interchanges frequently with -n-, viz., Or. nembu, lembu 'lemon' (nimbūka-), nāgā, laṅgalā 'naked' (nagna), O. Or. labaṇī (Gopībhāṣā) Mod. Or. lahuṇi (navanīta-) beside nahuṇi 'fresh butter' ; naṛu, laṛu (laḍḍuka) O. Or. luã:i for nuã:i (nam-, RB 46,52) Or. nima O. Or. limba (nimba, pp. 8) O. Or. *sts.* lābhi (nābhi BNG 3), laṭa (BC 22) for naṭa.

Similarly, Or. -n- interchanges with OIA -l- viz., Or. lei, nehi 'starch, paste' (lepa-), nikha O. Or. likha (RB 88), 'egg of the louse' (likṣā), lesibā, nesibā 'to besmear' (sleṣayati), O. Or loṇa (RM 62) Mod. Or. luṇa, nuṇa (lavaṇa), lattā, nāta (pk lattā) 'kick', nāhi, lāhi (nābhi) 'navel'.

The following words are of obscure origin : Or. naṭa, naṭakhaṭa 'naughty', nikhuṇa 'faultless', nehurā 'request', nipaṭi (B nipāṭ) 'completely', noṭā, loṭā 'water pot'.

(*B*) *Medial and Final Oṛiyā -n- represents* :

(i) OIA n MIA ṇ : Or. khaṇati, khaṇatā (khanitram pk khaṇitta), oṛhani, oṛhanā (ava-veṣṭana but ava-vah, pt. part. ava-ūḍha to Turner, Deś oḍḍhanam), thana (stana pk thaṇa), Or. siāṇa, siāṇiā 'clever' fem. sihāṇī (*sajñāna, *sa-jāna pk. sayāṇa cf. UVP p. 11 ND p. 608 ; or <śikṣaṇaka ?) thāna 'place' (sthāna), dhuni (dhūpana-) 'ascetic's smoky fire', bāṛheni, baṛhanī 'broomstick' (vardhanikā).

(ii) OIA ṇ MIA ṇ : Or. ghina 'hatred' (ghṛṇā pk ghiṇā), tini (trīṇi pk tiṇṇi), donā 'leaf cup' (droṇam pk doṇa), banibā 'to become ready, to ripen' (varṇayati pk vaṇṇei to J. Bl but skt vanati 'likes, gains, prepares' pk vaṇei to Turner), mākhunā 'beardless youth' (matkuṇa- MIA makkuṇa), makhana (mrakṣanam pk makkhaṇa), beni 'two' (*dvīṇi pk beṇṇi), cuna 'lime' (cūrṇa pk cuṇṇa).

(iii) OIA nn MIA ṇṇ : Or. anāja 'vegetables' (annādyam 'food' MIA aṇṇajja).

(iv) OIA ny MIA ṇṇ ; Or. kanāuja 'name of a country' (kanyakubja- pk kaṇṇauja), dhāna 'unhusked rice' (dhānyam pk dhaṇṇa), āna 'other' (anya- pk aṇṇa), bihana 'seed corn' (*bīja-dhānya- cf. ND p. 438), mānibā (manyate pk maṇṇai).

(v) OIA jñ MIA ṇṇ : Or. binati 'request' (vijñapti pk viṇṇatti).

(vi) OIA kṣṇ, MIA ṇh : Or. sāna 'small' (ślakṣṇa- 'slippery, small' pā saṇho pk saṇha, laṇha) cf. Jn sāna 'young, small' Mai sāna Nep. sānu etc. cf. ND p. 599, Guj. Phon. ff 89 but possibly from Telugu sanna cf. EOLS p. 377).

(vii) OIA rn MIA ṇṇ : Or sunā O. Or suniā: 'a gold coin' (G Bh. 22nd ch st. 88) [suvarṇa pk suvaṇṇa], O. Or. bānī (BC 62) Mod. Or bānā 'banner' (varṇa, varṇikā pk vaṇṇa, vaṇṇiā), bihune 'without' (*bibhūrṇa, *bidhuna cf. Bh. I p. 124, but may be vihīna in loc. with inf. of bhū>hu *vide* ODBL p. 772), kāna (karṇa pk kaṇṇa), puniā O. Or punei (inscr. EOLS) (pūrṇamā- late skt purṇimā pā puṇṇamā), cf Jn puniva Mid Mai punima ; pāna (parṇa- pk paṇṇa), cuna 'lime', cunā 'powder' (curṇa pk cuṇṇa), kaniara 'a kind of flour' (karṇikāra, GBh etc.)

(viii) OIA ñc MIA ṇṇ : O. Or. bābana, bāāna, bāuṇa Mod. Or. bāṇa (dvāpañcāśat pk *bāvaṇṇaṁ).

(ix) OIA ṅkt MIA nt : Or. panti 'row' (paṁkti- pk pantī).

(x) OIA hn MIA nh : Or. cinā 'trace, acquainted', (cihna) cp. Ass cin 'sign' Bh cinh Mai cenh Aw cinh 'token' (CDIA p. 262), also B. acin 'unknown' cenā 'known'. For the treatment of -n- in conjunction with plosives viz., nt(h) nd(h) *see* pp. 86-87, 90.

Sometimes Oṛiyā -n- is a result of deaspiration of -nh- viz., Or. ghenibā 'to take' (*genha, √grah) cf. OB ghiṇi, gheṇili ; Or. cinā 'trace' (*cinha<cihna), tuni 'silent' (tuṣṇī, tunhi) etc.

For the interchange of -n- with -l- *see* p. 88.

The following words are of obscure origin, viz., chiṭikini 'pellet bow', dāḷacini 'the bark of cinnamon tree', jhanajhana 'clattering', dhandā 'worry, work' (pk dhandhā), thāna 'piece of cloth'.

Sometimes dissimilation of -mm- to -nm- takes place viz., O. Or. sanamati (sammati), sanamāna cf. Mai sanmāṇa, sanamāna (sammāna), sanamukha cf. Mai sanamukha (sammukha) ; *see* also p. 9

Sources of Or. cluster sounds nh, ṇh which occur only in medial position :
Medial Or. nh, ṇh represents :

(i) OIA śn, ṣṇ, sn MIA ṇh : O. Or. juṇha Mod. Or janha (jyotsnā pk joṇha), cp. OAw joṇha Aw joṇhaiyā Ass jon, jonāi B juni, jonāki 'fire-fly' OB johna ; cinhā 'sign' (cihna- pk ciṇha), kānhu, kānha, kanhāi (kṛṣṇa pk kaṇha) B. Ass

kānu, kānāi Mai kānha Bh kānhā Aw kādhaiyā, kanhaiyā ; panheibā 'stream' (prsnāvayati pk paṇhavei) cf. Jn panhā B pānāna Mai panhāna ; Or. enhe 'such' O. Or. esana (*etādṛśna, *īdṛśna,-dṛśana) cp. Ass ene early Ass ehna (FM ff 232, 452) B. ehena hena ; Or. yenhe 'in which manner, as, like', O. Or. yosana (*yādṛśna,-dṛśana), Early Ass jehna>jene, Mid B yehna>yena ; Or kenhe O. Or. kesana 'how' (*kīdṛśna,-dṛśana) Mid. B Ass kehna>B. kena Ass kene.

(ii) OIA n + h, spontaneous or transferred : O. Or. senhā beside sena 'soldier' (MBh B 107) [skt. senā] Or. panhāi (quoted in HBL p. 202) beside panāi 'sandals' (upānah pk. pāṇahā) cp. Bh. Mai panahī B Ass. pānai (*see* p. 14)

(*A*) *Initial Oṛiyā -m- represents* :

(i) OIA m MIA m : Or. muhā (mukha- pk muha), māûsa (māṁsa- pk maṁsa), micha (mithyā pk miccha), matuāḷa (mattapāla), maṇiṣa (manuṣya), mûhāṇa 'junction of rivers' (*mukha-ayana), māgibā (mārga-), mita (mitra), māchi (makṣikā), majhi (madhye), mahuṛa, maüṛa (makuṭa, mukuṭa), māla 'wrestler' (malla), mola (mūlya, maulya), misibā (miśra-), majura cf. HBL p. 93 footnote (mayūra,* mayyūra,* majjūra), māṛibā (mardati) 'to mix by grinding', mādaḷa 'drum' (mardala-), māṅkaṛa (markaṭa), miḷibā (milati), mutibā (mūtraya-), muda 'seal' (mudrā), mugura (mudgara), muga, muṁga (mudga) 'lentil', moti (mauktika), mukuḷā (mukta), mathā (mastaka).

(ii) OIA mr MIA m : Or. makhana 'butter', mākhibā 'to besmear' (mrakṣaṇa, mrakṣati pk makkhei).

(iii) OIA mṛ MIA m : Or. miṭāibā 'to terminate' (cf skt mṛṣṭa- pk meṭāvai, miṭāvai, miṭijjai), miṭhā, miṭhāi 'sweetmeat' (mṛṣṭa- pk miṭṭha, maṭṭha), māṭi (mṛttikā), malā 'died' (mṛta pk maa), maṭhuā 'slow', māṭhibā 'to polish' (mṛṣṭa pk maṭṭha).

(iv) OIA śm, sm MIA m : Or. masāṇi 'burning place' (śmasāna- pk masāṇa, susāṇa), mūcha 'moustache' (śmaśrū pk mhacchu).

The following words are of obscure origin : mahaka 'scent', mihi 'soft', moṭa 'fat', miṭimiṭi 'twinkling', maṭara 'pea', maṭkā 'fragile', maṭamaṭa 'scaring with distended eye', māṇḍi 'pillow, bolster'.

(*B*) *Medial and Final Or -m(h)-represents* :

(i) OIA m Late MIA W~ NIA m revived : Or. nimatā 'invitation' (nimantraka pā nimantako) Mai no:ta, neõta O Mai neñota Bh neotā; Or. camakibā 'to astonish' (cf. camatkāra- pk camakkei) cf. Jn cakai 'confusion' B camkāna OB camakii 3 sg. pr Ass cāk, camakiba OAw caûka Mai camaka Bh camak 'to shine', cihûk, caûk ; Or. nāma beside nāã: (nāman pk ṇāma) Jn nā:va Mai no~ Aw nā:u Bh nā:w~ Ass nām B nām, nā as expletive cf. ODBL pp. 527, 519) ; O. Or. jamāî beside juāî, jvāî Mod. Or juāî, joî (jāmātā pk jāmāuya) ; O. Or.

rumi (roma, loma pk roma, loma), O. Or. dāmāḷu Mod. Or. ḍamaru (lex. ḍamaru, an Austro-Asiatic word); O. Or. kumara Mod. Or. kuāra (kumāra pk kumāro); O. Or. yamaḷā Mod. Or. jāā:ḷā 'twin' (yamalau, yāmalam pk jamala); gahama 'wheat' (godhūma pk gohūma), also Or. āma 'dysentry' (āma), māmā 'mother's brother' (māmaka).

(ii) OIA rm MIA mm: Or. dhāma (dharma), ghāma (gharma), cama (carma-pk camma), kāma (karma), kamāra (karmakāra), nikamā 'inactive' (niṣkarmā pk ṇikkama).

(ii) OIA mr MIA mb: Or. āmba (āmra pk ambaṁ), tambā (tāmra- pk tamba).

(iv) OIA mm MIA mm: Or. dāma 'price' (dramma 'a coin' pk damma cf. Gk drākhmē cf. ODBL p. 505), chāmu 'in front of' (sammukha pk sammuha) cf. Mid B. Ass chāmu;

(v) OIA my MIA mm: Or. jamibā 'to be collected' caus. jamāibā (yamyate 'is fixed' cf. pk jamei 'collects, makes firm' cf. ND), ghumāibā 'to sleep' (*ghumyati cf. Guj. Phon. ff 82 but *ghūr-ma in ND, CDIA p. 242 pk ghummai).

(vi) OIA ml MIA mbl: Or. āmbiḷa 'acidity' (amla- āmlam pk ambila).

(vii) OIA sm, ṣm MIA mh Early Or. mh, mbh Mod. Or. m: Or. āmbhe, āme (Vedic Nom. pl asme, asmābhiḥ inst. pl Ap amhehiṁ) cp. OB amhe, ahme O Aw. amhe, amhei Aw. ham Bh. hama, hamani (Pl.) Mai. hamme, Ass. āmi 'we' B āmi 'I'; tumbhe, tume, tome, tame (*tuṣme for yuṣme and *tuṣmābhiḥ for yuṣmābhiḥ pk tumhe, tumhehiṁ), Or. umheibā 'to lit fire' (cf. ūṣma pk umha-), also Or. um(b)hei 'brazier' cp. B. umāna (dial.) 'to shimmer' ODBL p. 326, Ass. um 'warmth' *see* also CDIA pp. 115-116.

(viii) OIA ṁb MIA ṁb: Or. samajha, samajhibā 'to understand' (saṁbu-dhyate pk saṁbujjhai), sambhāḷibā 'to keep correctly' (saṁbhārayati pk saṁbharai, saṁbhārei), samudhi 'a son's or daughter's father-in-law' (saṁ-bandhī pk saṁbandhi). O. Or. *sts.* samaṃdha (EOLS, 1. 8-9) 'in connection' (saṁbandha-).

(ix) Sometimes Or. m as intrusive: Or. bāmpha, bhāmpa (bāṣpa, vāṣpa pk bappha), pimpuṛi 'ant' (pipīlikā), ḍempha (darbha?); *see* also under 'Spontaneous Nasalisation'.

(x) OIA mb MIA mb Or. m, mb: Or. cumā 'kiss', cumbibā (cumba-, cumbati pk cumbai), sima, simba (śimba pk simbā), ḍama 'a caste' (ḍomba pk ḍumba, ḍomba, an Austro-Asiatic word), ḍālima, ḍāḷimba, dāṛimba (lex. dāḍimba cf. skt dāḍima pk dāḍima, dālima), ḍimiri 'fig' (uḍumbara- cf skt uḍumbara- pk umbara, an Austro-Asiatic word), jamu (jambu pk jambū) 'a fruit', simiḷi, simuḷi 'cotton tree' (śimbala pk simbali, an Austro-Asiatic word), tāmaḷi, tāmbuḷa 'betel' (tāmbūlam pk tambola, an Austro-Asiatic word).

(xi) OIA mbh MIA mbh Or. mbh, m : Or. kusuma 'yolk' (kusumbha), also B. Ass. kusum; Or. thamaibā 'to appease' (stambhate pk thambhai).

(xii) OIA hm : O. Or. bāmuṇa (brāhmaṇa EOLS p. 114) also cp. brāmbhaṇa (A. D. 1458 inscr. of Kapilesvara *vide* EOLS 18 A.S) cp. Aw. bā:bhan, bāmhan Mai bābhana Ass. bāmuṇ B bāmon, bāmun Bh. bāmhan, bābhan.

For the treatment of -m- in conjuncts of mp, mph, mb, mbh *see* pp. 87, 90-91

The following words are of obscure origin, viz , khompā 'done-up hair-knot (MIA khompa), rāmpibā 'to scratch' (pk rampa, rampai, ramphai, ramhai 'scrapes'), jhimi-jhimi 'tingling sensation', jhilimili 'vivid light', jamāṭ 'coagulation', dhamaka 'threat', dhimā cf. B ḍhimā 'slow', dhuma 'noise of explosion', tāmbu 'tent', jhumukā 'earrings with pendants', jhāmpa 'to jump', duma cf. B dumbā 'fat'.

THE SEMI VOWEL -y-

OIA -y- has not survived in Oṛiyā. Initially it became -j- ; in consonant groups, it was assimilated with or without influencing the consonant it followed ; between vowels it was lost without trace except in the group -aya- which became MIA -e-.

At present -y- is pronounced as -j- in Oṛiyā as in other eastern languages ; and therefore, special mark has been added to the letter to signify the -y- sound. To quote B. C. Majumdar, "In Bengali as well as in Oṛiyā, -y- as an initial or taking another -y- as a *phalā*, is uttered as -j- and in any other situation, it is -y- as a rule. In Oṛiyā, I could notice a single exception to the rule in the pronunciation of -mayūra- which is pronounced as -majura-" (The history of the Bengali Language p. 93 footnote). This tendency of pronouncing -y- as -j- goes back even to Aśokan times. The form majura occurred also in the Kalsi, Dhauli and Jaugaḍa inscriptions which was a true Māgadhan word. Michelson considers the presence of majura in the inscription of the north-west to be due to Māgadhan influence (cf. Banerjee Sastri : Early inscriptions of Bihar and Orissa, p. 49).

The sound, however, has re-appeared in Oṛiyā. Its origin may be stated thus :

(i) It developed as a glide to avoid hiatus, viz. Or. hiyā (hṛdaya). But usually, the glidic -y- is not represented in writing and the vowels in contact are shown to be retained side by side, in quite a contrast to Bengali, Assamese, Bhojpurī and Maithilī orthography. For examples in Oṛiyā, śiāḷa (śṛgāla) cf. B śiyāl ; Or. kiā (ketaka) cf. B keyā etc. (*see* also pp. 46-47)

The foreign words even are changed according to the usual orthography, viz., Or. khiāḷa 'idea' (Arabic xiāl) but B kheyāl Mai khyāla, kheāla ; Or. piādā 'peon' B peyāda Mai pyādā, peādā [Persian piādah] etc.

(ii) In *ts.* word, it is pronounced like -ia- unlike Bengali where the value of -y- is usually -ea- or Bhojpuri -e- and Maithilī -æ-; viz., skt śayana Or. [saiana]; skt samaya Or. samaia B samae Mai samæ, Bh samē cf also Bh baes for skt vayasa etc.

In Old Oṛiyā, possibly the sound -y- was pronounced like Bengali. In the old orthography of Oṛiya, -y- was sometimes represented as -e- viz., O. Or. (insc.) samae for samaya, bije for vijaya, rāe-guru for rāja-guru (*rāya), also in MBh. samae for samaya. But in MBh. and elsewhere, -aya- is sometimes represented as -ai-, viz., Jaintā (Jayantā).

(iii) for the pronunciation of -y- as a member of the consonant group *see* pp. 145-146.

THE SEMI-VOWEL -v-

In initial position, OIA -v- has become -b- in Bengali, Assamese, Bhojpurī, Maithilī as well as in Oṛiyā. The medial group -rv, vy- >MIA vv has become also -b- in these languages (cf. Or. sabu<sarva). Here it is in sharp contrast with the western languages like Gujrātī, Marāṭhī, Sindhī, Pañjābī as well as Singhalese and Kāśmīrī (Bloch ff 150) which have preserved initial -v- [*v*] as well as MI vv<OIA rv, vy (cf. Guj. Phon. ff 50).

But sometimes, MIA vv representing OIA vy or doubling of -v- becomes -v->-w- and is written and pronounced as a glide e.g., Or. sie 'sews' (sīvyati, sivvai), śoe, śue (svapīti, suvvai), dhoe 'washes' (dhuvvai) etc. as in other eastern languages.

MIA intervocal -v- representing OIA -v- and -p- is softened to -w- and it is then treated as a vowel in contact. It is either absorbed into the previous vowels or become vocalised to -u- as in Maithilī or remained as a mere glide sound (*see* also under 'Vowels in contact').

In *tss.* words, -v- has a -w- sound as in Assamese, Oṛiyā, Bhojpurī, Maithilī, for examples, skt. svādu>*swādu *sts.* Or. suāda B soyād, sād, Ass sowād (xowād) Mai swāda, soāda Bh sawād cf. also Mai biswās (viśvāsa).

For the pronunciation of -v- in conjunct consonant of OIA *see* also p. 146.

THE LIQUIDS

(A) Initial Or. -r- represents :

(i) OIA r MIA r: Or. rāndhibā (randhayati pk randhai, -ei), rāya (rāja pk rāya), rohi 'a kind of fish' (rohita pk rohia), cf. B rui Ass rau Bh rohū Mai rohiḍa, rahu ; rakhūaḷa (rakṣapāla- pk rakkhavāla), roibā (ropayati) 'to plant', raṛibā 'to cry' (raṭati), rasāṇa 'varnish' (rasāyana), rati 'a seed' (raktikā), rakhibā (rakṣati), rāti (rātri), rāṇḍī (raṇḍā) 'a widow', rāṇī (rājñī).

(ii) OIA l/r MIA l/r: Or. rāḷa 'tar', lāḷa 'spittle' (lālā pk lālā), rukhā 'barren' (rūkṣa- lūkṣa pk rukkha, lukkha, lūha), rumi (MBh) (roma, loma- pk loma, ṇoma), rasuṇa 'garlic' (laśunam lex. rasunam, rasonam pk lasuṇa, lasaṇa).

The following words are of obscure origin, viz., Or. rui 'cotton' (pk rūa), roṭi 'loaf' (Deś roṭṭa 'rice flour'), rokibā 'to prevent' (rodh-, -akka ?), rāmpa, rāmpibā 'to scratch' (pk rampai, ramhai 'scrapes'), ragaṛibā 'to rub', rokaṛa 'cash book'.

(B) Medial and Final Or -r- represents:

(i) OIA r MIA r: Or. kāũri 'west Assam' (kāmarūpa), kiāri 'a bed in garden' (kedārikā pk keāriā), śaśura 'father-in-law' (śvasura pk sasura), geru 'a red brown earth' (gairikā pk geria, geruya), gorū (gorūpa pk gorūpa), gahira (gabhīra), guhāri 'request' (goha-kāra-), gamāra (grāma-dāra), kãsārī (kāṁsakāra-), karata 'a saw' (karapatram), O. Or. ābara Mod Or. āhuri (apara), sunāri (suvarṇakāra).

(ii) OIA ṭ MIA ḍ: Or. bara 'a banyan tree' (vaṭa- pk vaḍa), paraṛā 'a vegetable' (cf. paṭola- pk paḍola), karā (kaṭa, kaṭaka 'twist of grass, bracelet' pk kaḍaga), sera (late skt seṭah 'a particular weight'), birā 'sheaf', biriā 'roll of betel' (vīṭam, pk bīḍaga, vīḍiā), keruāḷa cp. OB keṛuāḷa (kṛpīṭapāla), karei 'a pan' (kaṭāha) cp. B. kaṛā.

(iii) OIA t, d Second MIA ḍ in the numerals especially: Or. pañcastarī (pañcasaptati), satara (saptadaśa pk sattarasa), saturi '70' (saptati), pandara (pañcadaśa), tera (trayodaśa), egāra (ekādaśa), aṭhara (aṣṭādaśa), sarisa, sarī 'like' (sadṛk>*sadi replaced by sari after analogy of pk tārisa beside tādisa for tādṛśa cp pā sarisa cf. ND p. 590.)

(iv) OIA ḍ MIA ḍ, ḷ: Or. birāṛi beside birāḷa, bilāra 'cat' (biḍāla- pk biḍāla, birālaa, bilāla).

(v) OIA l ?: O. Or. maraṛā 'lavatory' (malāgāra- ?) (MBh U 99).

The conjunct consonants with -r- in *sts.* words are often separated by anaptyctic vowel, viz, bhāriyā (bhāryā), pāruśa (pārśva), also in O Mar. parūśa beside pāsūn; soriṣa (sarṣapa pk sarisava), āriśī (ādarśa pk āarisa) etc.

The formative suffix -r- is a frequent occurrence which is either a derivative of OIA kara, kāra or simply an extension of skt -ra- or -ḍa-; viz., Or. ghamira 'a prickly heat', hakarā 'shout' (cf. skt hakkāra pk hakkai), māaṛa (nom. pl. matāraḥ) 'mother', piyara in MBh 'father' (pitaraḥ), payara 'feet' (pādākāra or pāda-ra or pāda-ḍa ?), begara 'without' (vyagra), peṭarā 'basket' (cf. piṭakam), dohorā 'double' (cf. dvidhā, dvi-sara), chera 'loose motion', cheṛuā 'coward' (cf. skt śakam), chāmure (sammukha).

The following words are of obscure origin, viz., Or. korā 'unused', khāruā 'a coarse red cotton cloth', picikāri 'syringe', choparā 'agitation' (kṣubh ?), chokarā 'boy' (pk choyara), chu(h)ārā 'dried date', kacuri 'a kind of sweetmeat', charaṇā 'small shot', supāri 'betel nut', ghābarā 'confused', bharasā 'reliance', bhora 'dawn', ṭhokar 'obstacle', ḍhera 'much', ṭopara 'covering of the head', ṭukura 'a piece', nehurā 'request', maṭara 'pea', tarakāri 'vegetables'

(*A*) *Initial Oṛiyā -l- represents*:

(i) OIA l MIA l : Or. laṅga (lavaṅga pk lavaṅga), lekhā 'writing' (lekhya pk lekkha), ladāibā, ladibā 'to load' (late skt lardayati pk laddei'), laḍu 'a kind of sweetmeat' (laḍḍuka pk laḍḍua), lāhā 'lac' beside lākha (lākṣā pk lakkhā), leṅguṭi 'loincloth' (liṅgapaṭṭa), lāja (lajjā), lauḍi (lakuṭa, laguḍa), lākha (lakṣa), luha (lauha), liā (lājāḥ), lāu (alābu), lasā 'pus' (cf lasīkā 'serum'), lipibā 'to besmear' (lipyate), lāgibā 'to attach' (lagyati), lambā (lamba), luṇa (lavaṇa) O. Or. loṇa (RM 62).

(ii) OIA r(l) MIA r, l : Or. lugā 'clothes' (perh. rugna- pk rugga, lugga 'worn out'>'rags' cf. ND p. 558), *see* also HBL p. 256; lodha 'a particular red stalked plant' (cf. skt rodhra-, lodhra- pk loddha)

(iii) OIA śl MIA l : Or. lesibā, nesibā 'to besmear' (śleṣayati 'joins' pk silesai, lesaṇa cf. śleṣa, śliṣyati pk lissai).

(iv) OIA n MIA n : Or. lahuṇi, nahuṇi O. Or. labaṇī (navanīta- pk navaṇia), nibhibā beside libhibā 'to extinguish' (nir-vā), laṅgalā beside naṅgalā (nagna-).

The following words are of obscure origin, viz., loccā 'profligate', lātta, nāta 'kick' (pk lattā), lāṭhi 'stick' (perh. contamination of yaṣṭi- pk jaṭṭhi, laṭṭhi with lakuṭa- cf. ND), lohi 'woollen wrapper', laṇḍā 'bald', laṛibā 'to fight', leṅgaṛā 'lame' etc.

(*B*) *Medial and Final Or -l- represents*:

(i) OIA l MIA ll, l : Or. koili (kokila pk koila), diāsili (dīpaśalākā) 'match', kalejā 'liver' (kāleyaka- pk kāleya), bilāra (biḍāla pk biḍāla, birālaa, bilāa), ḍhilā 'slack' (śithila<*sṛthira pk siḍhila, saḍhila, ḍhilla), ḍhāḷa (ḍhālam), bādala (vārdala), pīlā (pītala- Deś. pīvala), ālua (āloka), O. Or. heṅgulā deī [MBh] (hiṅgulā devī), talabāra (talavāri-), ḍoli 'litter' (dolikā), ḍāli 'split peas' (dāla-), tolibā 'to raise' (tulayati), bāla (vāla-) 'hair', bāli (vālukā), hālukā 'light' (laghu, lāghava), kali (kalaha), cheli (chagala), koilā 'coal' (lex. kokila 'lighted coal' Deś koilā), ālaṭa (ālāvarta) 'a big fan'.

(ii) OIA ll MIA ll : Or culli 'fire place' (cullī pk culli) beside culā; cila 'kite, hawk' (cilla-, cilli- pk cillā), gāla 'cheek' (galla pk galla), khāla 'creek' (lex. khalla- pk khalla), ola 'a plant' (ollam), bolibā (pk bolla), ghālibā (pk ghallai), chāla 'bark', chāḷi (challi pk challi), phula (phulla), bhālu 'bear' (bhalluka), belaṇā 'rolling pin' (vellanam), māla 'wrestler' (malla<madra) jhālara 'lace end' (lex. jhallarī), kalaṇā 'name of a vegetable' (kāravella. kāravallī), ulusibā (skt. ullāsa).

(iii) OIA lv MIA ll : Or. bela 'an wood apple' (bilva pk bella).

(iv) OIA dr MIA dd, ll : Or. bhala (bhadra pā bhadda) pk bhalla, māla 'wrestler' (madra, malla).

(v) OIA ly MIA ll : Or. kāli (kalyam, kalye pk kallaṁ, kalhiṁ), śela 'dart' cp. O. Or śala 'painful' (RK 70) (śalya pk salla, sella), ghālibā (*ghalyati cf. gharati, jigharti 'sprinkles' Ap ghallai), cāla 'behaviour' (*calyā cf. caryā 'conduct' cf. pk calli 'dance step') ; cālibā 'to move' (*calyati pk callai cf. skt carati, calati pk calai), jāla 'net', jāliā 'fisherman' (cf. skt jālya- MIA jalla), tela 'oil' (*tailya), mola 'price' (maulyam cf. mūlyam pk molla, mulla).

(vi) OIA ry, ly MIA ll : Or. pāliṅki 'litter', palaṅka 'bed' (paryaṅka- palyaṅka pk pallaṅka), pelibā 'to cast down' (preryate, *prelyate poss. of prerate, prerayati pk perai, pellai), pālaṭibā 'to change' (paryasta- cf. ODBL p. 491 ; J. Bl suggests paryaṭati i.e., *paryaṭya, *palyaṭya, but Turner refers to parivartate pk parivaṭṭai, -ei, pariaṭṭai, pallaṭṭai, palaṭṭai Deś allaṭṭa-pallaṭṭa) ; palāṇa 'a seat on the back of beasts' (paryāṇa- pkt pallāṇa); pālā (paryāya).

(vii) OIA ṛt Mg Pkt ḍa Or. l (*vide* ODBL p. 497) : Or. kalā 'did' (kṛta pk kaḍa), malā 'died' (mṛta pk maḍa), galā (gata- after the analogy of pk kaḍa, maḍa, gala<*gaḍa) cf. ODBL p. 497, p. 343 footnote.

(viii) OIA t, ṭ MIA ḍ : Or. oghālibā 'to open' (udghāṭaya- pk ugghāḍai or ud-*gharyati cp. Ap ghallai cf. ND), ohaḷibā 'to hang', olhāibā 'to lower' cf. B olā 'to descend' (avahata pk ohatta 'bent downwards' cf. Pischel ff 194 ; MIA *ohaḍa<avahata ? ; But skt *ava-labhate is suggested by Turner and Dr. Chatterjee cf. ND p. 62 ODBL p. 544).

(ix) OIA -d- MIA ḍ > ḷ>l ?: O. Or (inscr) kaluma (kadamba pkt. kalamba cf. Pischel ff. 244).

Words with -l- as formative suffixes are very frequent in Oṛiyā. This -l- is an extension of -illa- suffix. In nouns and adjectives, Or. thaili 'purse' cf. also kuthulī 'bag' (kakṣa-sthavi ? pk kottha 'belly', kothala 'granary bag'), kaṭāla (kaṣṭa) 'miserable', andhalā 'blind' (andha), gābhil 'pregnant' (garbha-), ekalā, ekelā (aikya, ekala), śukhilā 'dry' (śuṣka), mailā 'dirty' (mala-, *malilla), nihāla 'very rich' (nidhi, *nihialla), pahilā 'first' (pratha-ma, *prathilla), pākalā beside paka (pakva-). In the formation of past tense of the verbs, O. Or. aile, nailā (K. Ko.) 'came, did not come' (āgata, āyāta-), dili, delī (Puri inscr.) (datta, *dita), sutilā (supta) etc.

The following words are of obscure origin, viz., Or. kuli 'gurgling' (skt kavala 'mouthful ?), ḍālā 'basket' (pk ḍalla), ṭahalibā 'to walk' (skt trakhati 'goes' ?), cholā 'gram' (pk chollai 'skins'), dhāndolibā 'to search' cf. B ḍhōṛā O Mar dhāṇḍoḷitā: ; pola (pk polla 'hollow'), hallā 'noise' (cf. skt halahalā 'applause'), hula 'sting' (pk hulai 'stings'), khila 'roll esp. of betel', kholibā

'to open', celā 'pupil' (Deś cella, cilla), totalā 'lisping', ḍhelā 'lump of earth', ḍhola 'drowsing', ṭola 'Sanskrit school', ṭhelibā 'to push', jhula 'soot', jhila 'pool' (pk jhillī 'wave', jhillai 'bathes'), jhilimili 'vivid light', dalama 'building material' ? jhalakibā 'to shine' (Ap jhalakkai 'burnt'), ḍaula 'shape'.

For interchange of -l- with -n- *see* p. 88.

The sources of -lh- :

The sound -lh- in Oṛiyā is of secondary origin, originated either from stress accent or from a transferred -h- attached to -l- (cf. also Pischel ff 330). It does not occur initially. It represents : Or. pilhāi 'spleen' beside piḷchi (skt plīhan<*splihan pk piliha) cf. B pilā, pilihā (ODBL p. 544) Bh pilahi Bi, pilhi ; Or. olhāibā 'to lower', ohaḷibā 'to hang' (avahata pk ohatta, *ohaḍa ? cf. Pischel ff 194 but to Turner, *avalabhate) ; Or. kolha 'a tribe' (skt. kola Deś kolla cf ODBL p. 540) cf. O Mai kolha (VRC) B kol ; O. Or. malhāra 'a country' (mallāra) (MBh As. 28), kaṛhi 'bud' (kali>*kalhi>*kaḷhi >kaṛhi ?) (MBh Ai. 30). Or. gelhā 'much affection' (<?)

A NOTE ON OṚIYĀ -ḷ-

The retroflex and highly flapped consonant -ḷ- is as distinctive sound as -ṇ- in Oṛiyā in contradistinction to Bengali, Assamese, Bhojpurī, Maithilī etc. Like ṇ- it never occurs initially in Oṛiyā. A retroflex -ḷ also occurs in Central and Western Pāhāṛī, Pañjābī, Lahandā, Rājasthānī, Gujrātī and Marāṭhī (cf. Grierson : On the Modern Indo-Aryan vernaculars, Indian Antiquary vols. 1931-1933, supplement, EOLS pp. 121-123).

Historically, the sounds -ḷ-, ḷh which developed in intervocalic positions out of -ḍ-, ḍh-, occurred in the Vedic speech, and also in Pāli, and Prākrits (Pischel ff 246) and in some Northern Indian Brāhmī inscriptions.

According to Dr. Tripathi, the orthography of -ḷ- as distinguished from -l- was clearly differentiated in an old Oṛiyā inscription of 1156 A.D. ; while in Gujrātī and Marāṭhī, it appeared possibly in the 15th century A.D.

As a rule, as enunciated by Grierson, every single -l- between vowels became cerebralised to -ḷ- and that double dental is reduced to a single -l- (as in the case of -ṇ-). Oṛiyā represents more or less faithfully the phonetic habit, though exceptions are not rare in which case, a hypothetical MIA form, as Dr. Turner had in his ND, is to be surmised. In Oṛiyā -ḷ- does not occur initially. The Western or Sambalpurī Oṛiyā always replaces -ḷ- by -l- (EOLS pp. 216-217).

Medial Or. -ḷ- represents

(i) OIA r MIA l : Or. haḷadi (haridrā pk hariddā, haliddā, haladda, -i), cāḷiśa '40' (catvāriṁśat pk cattālīsaṁ, cāyālīsaṁ Ap cālīsaṁ) kāhāḷa 'a class of cultivators who serve as palanquin bearers' (lex. kāca- 'carrying stick' pā kājahārako

'bearer of a carrying stick' Deś kāhāra), ḍāḷa 'branch' (skt dāra- spitting', ḍāla- 'shoot' pk ḍāla 'branch'), ogāḷibā 'to vamit' (cf. udgirati), ohaḷibā 'to hang' (avatara ? or, *avalabhato) cf. B olāna, Or. sambhāḷibā (sam-var-), dāmāḷu (MBh B. 6) (ḍambaru ?), sajaḷasa (sarjarasa) 'rosin', āḷati (ārātrika), agaḷuā (aguru RM 23rd ch.)

(ii) OIA ḍ MIA l, ḷ, ḍ :

O. Or. ṣohaḷa, ṣohaṛa, beside Mod. Or. ṣoḷa (ṣoḍaśa pk soḷasa, soḷaha, soḷā), ḍāḷimba (lex. dāḍimba, dāḍima pk dāḍima, dālima), tintuḷi O Or. tentuḷi (MBh U 32), (tintiḍikā), kheḷā, kheḷibā (krīḍati, krīḍā pk kīḍai. Turner also refers to skt kṣvelati 'leaps' pk khelai), koḷa 'lap' (kroḍa pk koḷa), cuḷa 'tuft of hair' (cūḍā- pk cuḍā, culā), ohaḷibā 'to hang' (avahata pk ohatta 'bent downwards' cf. Pischel ff 194 pk ohatta, *ohaḍa ?).

(iii) OIA l MIA l : Or. hāḷukā 'light' (laghu-ka pk lahua, halua with extension of -kka ; J. Bloch suggests Dravidian origin), O. Or. pituḷi, pituḷā (puttalikā pk puttaliā), rakhuāḷa (rakṣapāla pk rakkhavāla), matuāḷa (matta-pāla), sāvaḷā (sarvalā), simiḷi, simuḷi (śimbala), boḷa 'day time' (velā), māḷa 'garland' (mālā), mādaḷa (mardala), pitaḷa (pītala), pohaḷa 'coral' (pravāla), phaḷa (phala), bakaḷa (valkala), baḷada (balivarda), pakhāḷibā 'to wash' (prakṣālaya), thaḷa (sthala), deuḷa (deva-kula), kājaḷa (kajjala), śikuḷi (śṛṅkhala), sāûḷa 'dark blue, tender' (śyāmala), yuāḷi (yuga-pāla) etc. But there are some vacillations in MBh possibly for scribor's error, viz., aṅguḷi (U31, K31), āṅguḷi (Ai. 6) beside āṅgula (U80) ; koḍāḷa (Sv. 2) beside koḍḍāle (As. 30) 'spade' etc.

(iv) OIA rh : Or. gāḷi 'abuse' (garhā) cp. B. Ass. gāli, also in other NIA languages, -l, ll, lh- cf. CDIA p. 218 ; Or. āḷi 'female attendant' Ass. āl 'attendance' (arhā, FA p. 237).

The following words are of obscure origin, viz., ḍāḷacini 'the bark of cinnamon tree', khoḷa 'pillow-case, sheath', ṭāḷa 'evasion' etc.

THE SIBILANTS

(A) Initial Oṛiyā -s- represents :

(i) OIA ś MIA s Mg. Pk. ś : O. Or. śeya (MBh U100) Mod. Or. śeja bed' (śayyā pk sejjā), suṇṭhi 'dried ginger' (śuṇṭhi pk suṇṭhī), suṇḍa (śuṇḍā pk soṇḍā), śukhilā, śukhā 'dried' (śuṣka), śiuḷi (śaivāla), śikā 'hanging loop' (śikyam), simba, sima (śimba-), sisu 'a kind of tree' (śiṁsapā), śikhibā (śikṣ-), sipa 'shells burnt for lime' (skt śipre du.), śaha (sata), śuā (śuka), śaṅka 'conch' (śaṅkha), śujhibā 'to repay' (śudhyati).

(ii) OIA ṣ MIA s Mg Pk ś : Or. saṇḍa 'bull', saṇḍha 'stout' (sāṇḍa- late skt ṣaṇḍa- pk saṇḍ(h)a-), ṣāṭhie (ṣaṣṭi- pk saṭṭhi), O. Or. sohaḷa, sohaṛa beside Mod Or. ṣoḷa (ṣoḍaśa) etc.

(iii) OIA s MIA s Mg Pk ś : O. Or. sorịṣā Mod. Or. soriṣa (sarṣapa pk sarisava), suāga, suhāga (saubhāgya- pk sohagga), sunthā (sīmanta- pk sīmanta, sīmantaya), sijhibā 'to boil' (sidhyate pk sijjati) siibā 'to sew' (sīvayati), sutā (sūtra), sera 'a ½ lb. weight' (late skt seṭa-), se 'he' (saḥ), sindhi 'a hole made by thieves' (saṁdhi-), sindūra (sīndura), sābata (sapatnī), sāṛhe 'plus one half' (sārdha-), sāta '7' (sapta-).

(iv) OIA śṛ, sṛ MIA s : Or. suṇibā (śṛṇoti pk suṇai), suṅghibā (*śṛṅghati pā siṅgati Deś suṅghia 'smelt' cf. ND but to Bloch śiṅghati), śikuḷi (śṛṅkhala pk siṅkhala), siṅghāṇi 'discharge from the nose' (śṛṅghāṇikā lex. śiṅghāna pk siṅghāṇa), siṅgaṛā 'water chestnut' (śṛṅgāṭaka pk siṅghāḍaga), śiṅga 'horn' (śṛṅgam pk siṅga), śiāḷa (śṛgāla pk siāla), saṛaka 'road' (sṛti- 'path' pk sii).

(v) OIA śl MIA s : Or. sāna 'small' (ślakṣṇa- 'slippery, tender, small' pk saṇha, laṇha), *see* also p. 189.

(vi) OIA śv, sv MIA s : Or. śaśura (śvaśura- pk sasura), śāśu (śvaśrū- pk sassū), sāî 'master' (svāmī pk sāmi Ap sāmia), sura (svara) 'tune', śoibā 'to sleep' (svapiti, *svapati pk suvai, sovai), setā 'white leprosy' (*śvaitraka- cf. skt śvaitram, śveta- pk setta).

(vii) OIA śy, sy MIA s : Or. śaḷā 'wife's brother' (śyāla- pk sāla), sāûḷā 'tender, dark blue' (śyāmala- pk sāmala), saṛhu 'wife's sister's husband' (*syalī-voḍhṛ > *sāḷḍhuo cf. ND p. 598).

(viii) OIA śr, sr MIA s : Or. seṭhi 'a merchant' (śreṣṭhī pk Deś seṭṭhī), siṛhi 'staircase' (średhī, śreḍ(h)ī 'progression of figures' < *śriz-ḍhi pk seḍhī, connected with śreṇi- cf. ND), sekibā 'to warm', sekā 'baking' (cf. skt. śrapayati 'causes to boil, roast', caus. of śrapyate perhs. with extn. of -akka of -*se cf. ND ; but connected with RV śik-van 'flame' ?, [i. 35.4]) i, sua 'wave, flood' (srota).

The following words are of obscure origin, viz., Or. soṭhā, soṇṭhā cf. Ass soṭā 'bundle of grass' B sõṭā 'staff' ; saledā B salitā, Or. supāri 'betel nut', sastā 'cheap' etc.

(*B*) *Medial and Final Oṛyiā -s- represents* :

(i) OIA ś MIA s : Or. dasa '10'. (daśa- pk dasa, daha), paśibā (praviśati pk pavisai), rasuṇa 'garlic' (laśunam lex. rasunam, rasonam, pk lasuṇa, lasaṇa), paṛiśi 'neighbour' (prativeśī pk paḍivesia or poss. skt prativāsī), phāśī 'snare' (pāśa, *spāśa), basibā (upaviśati), baṛaśī (baḍiśa), masāṇi (śmaśāna), sateiśi (saptaviṁśati), diāsiḷi (dīpaśalākā), tesana, kesana, yesana (tādṛśa-, *kadṛśana, yādṛśana).

(ii) OIA ṣ MIA s : Or. isa 'pole of a plough' (īṣā pk īsā), lesibā, nesibā 'to besmear' (śleṣayati pk silesai), O. Or. mānuṣi (MBh B102) Mod. Or. mãṇiṣa (mānuṣa-, manuṣya- pk maṇussa), phārasā 'a kind of fruit' cf. B phalsā (pāruṣaka- pk pharusa), posibā 'to nourish' (poṣayati pk posei), tusa 'chaff of

grain' (tuṣa- pk tusa), causaṭhī (catuḥṣaṣṭi- pk causaṭṭhiṁ), khosibā 'to push in' (*skoṣati IE *sqeu-s cf. skt kṣuṇāti 'tears' cf. ND p. 131), O. Or (inscr) āśa, āuśa (āyuṣa).

(iii) OIA s MIA s: Or. rosei, roṣāī-ghar 'kitchen' (rasavatī pk rasavaī), pasāruṇi 'creeping plant' (prasara- cf prasārayati pk pasarei), tasara, ṭasara 'coarse silk' (tasara- late trasara pk tasara, ṭasara), tisi 'linseed' (atasī but to Turner the connection is not clear), dusarā (dvau and sara 'moving' cf. ODBL p. 700 of. puraḥsara- pk dusara also ND) cp. O. Or. tesari, tīsarā (inscr.), nikāsa 'settlement' (niṣkāṣa), rasāṇa 'polish' (rasāyana), lasā 'pus' (lasīkā).

(iv) OIA rś MIA ss: Or. āriśī 'mirror', (ādarśa- pk āarisa), dhusā 'a woollen shawl' (dūrśaṁ 'garment or cloth' also dūśyam 'tent', duṣyam 'cloth' pā dussaṁ 'cloth' Aś dusāni cf. ND p. 331 but dhūsa, dhukṣ- cf. ODBL p. 506).

(v) OIA rśv MIA ss: Or. sls pāruśa (pārśva).

(vi) OIA śm, sm MIA ss: Or. raśi 'rope' (raśmi- pā rasmi, raṁsi pk rassi) cf. Aw. rasari 'string' Mai. rāsi, rasari Bh. rāsi B. rāś; pāśoribā 'to forget' (prasmarati cf. ODBL p. 548) cf. Ass. pāhar Mid. B pāsare; Or. bisaraṇa (vismara-) cf. Bh. bisar Mai bisoraba Mid. B bisare Aw. bisarab.

(vii) OIA rṣ ṛṣ MIA ss: Or. kasā 'tight' (karṣati, kṛṣati pk kass- but J. Bl. suggests kaśaḥ 'thong' pk kasā also inf. of Pers. kasīdan); Or. ghasibā, ghoṣāṛibā 'to rub' (*ghṛṣati pk ghasai cf. gharṣati pā ghaṁsati); śīsa, śisi? (śīrṣam pk sissa, sīsa), soriṣa (sarṣapa pk sarisava).

(viii) OIA sy, ṣy, śy MIA ss: Or. bhāsibā 'to float' (bhraśyati pk bhassai), O. Or. diśai Mod. Or. diśe 'is seen' (dṛśyate pk dissai, dīsai), sosibā 'to soak' (śoṣyati cf śuṣyati pk sosei, sussai), cusibā, cosibā 'to suck' (cūṣyate *coṣayati MI *cūss, *cos), pusa 'a month' (puṣya- cf. pauṣa pk pussa), nāsa 'snuff' (nāsyam pk ṇassā 'nose'), hasa 'laughter', hasibā (hāsyam, pk hāsa); O. Or. debaśa (devasya) [EOLS 1. 1-2], also gen. sg. -sa in EOLS, A. 10, 11, 12.

(ix) OIA ṁs, ṁś, MIA ṁs: Or. māûsa 'meat' (māṁsam pk maṁsa), haûsa 'a duck' (haṁsa pk haṁsa), bāûśa (vaṁśa pk vaṁsa), O. Or. kaṁsāḷa 'bell metal' Or. kāsā, kāsāri 'maker of bell metal' (kaṁsa-, kāṁsakāra- pk kaṁsa, kāsa), sisu (śiṁśapā pk sīsavā) 'a kind of tree', dhasibā 'to fall in' (dhvaṁsati pk dhaṁsai, dhasai cf. skt dhātp. dhrasnāti, dhrāsayati), sanḍuāsi 'pincers' (saṁdaṁśaka- pk saṁḍāsa), oṛasa 'bed bug' (uddaṁśa pk uddaṁsa, uḍḍasa), ḍā:sa, ḍāā:sa 'buffalo-fly' (daṁśa- pk daṁsa), āûsibā 'to scratch' (aṁs 'to scratch'); also Or. numerals, chatiśa (cf. saṭtriṁsat), cāḷiśa (catvāriṁśat), haṁsuḷi (aṁsa 'shoulder') cf. OAw hāsia 'sickle' B hā:suli 'collar'.

(x) OIA śr MIA ss: Or. misibā 'to mix' (miśrayati pk missai), misi 'a black compound for teeth' (miśrita- pk missia perh. contam. with skt masi), śāśu (śvaśrū- pk sassū).

(xi) OIA ṣv MIA ss : Or. mausī (mātṛsvasā pk māussi), piusī (pitṛsvasā pk piussā).

(xii) OIA sv MIA ss : Or. gosāî (gosvāmī pk gosāviā), O Or *sts.* sarbasa (sarvasva) [EOLS. 11.6]

(xiii) OIA śv MIA ss : Or. paraśu ? (paraśva-), *sts.* pāruśa (pārśva), O. Or. aśiṇa (āśvina GBG) O. Or bāśelī (vāgīśvarī, BA) cf. B. bāśali, bāśuli.

(xiv) OIA śc MIA cch : Or. pastāibā 'to repent' (*paśca-uttāpa, *paścā-tāpa cf. skt paścāttāpa pk pacchādāva-)

(xv) OIA ḥsv MIA ss : Or. niśāṇa 'sign, token' (niḥsvāna- cf. ODBL p. 548), niśuṇi 'ladder' (niḥśreṇi-)

(xvi) OIA ts MIA ss : Or. oṣā 'vow, fasting, festival' (utsava pk ucchava, ussava, ūsa, osa ; but may be connected to skt. upavāsa, CDIA pp. 86-87, 105).

The following words are of obscure origin, viz., Or. khasibā 'to fall off', paisā 'one pice', phaskā 'loose', batāsa 'wind' (conn. with vāta-, vāyu. ?), sastā 'cheap', khosā 'husk', ghusa 'bribe', bharasā 'reliance', bhusi 'chaff' (pā, pk bhusa).

THE GLOTIAL FRICATIVE

(*A*) *Initial Oṛiyā -h- represents* :

(i) OIA h MIA h : Or. hātha (hasta pk hattha), hāthī (hastī pk hatthī), hariṛā (haritakī pk harīḍaī), haḷadī 'turmeric' (haridrā pk hariddā, haliddā, haliddī, aladda, -ī), hia, hiyā (hṛdaya pk hiaa), hāṭa (late skt haṭṭa-), hatiāra (*hasta-kāra pk hatthiyāra), haûsa 'duck' (haṁsa), hasa (hāsya-), haḷa 'plough' (hala-), hakarā, hakāribā (lex. hakkayati pk hakkai), hātuṛā 'hammer' (*hasta-kūṭa), hāṇibā 'to strike' (*hānayati cf. hanti), O. Or. heṅguḷā (hiṅgulā) etc.

(ii) OIA bh MIA h : Or. hebā, habā 'to be' (bhavati pk hoi), haṇḍā, hāṇḍī 'pot' (bhāṇḍa cf. ODBL p. 533 cf. late skt haṇḍikā)

(iii) OIA gh MIA h : hāḷuka 'light' (laghuka pk lahua, halua with extn. of -akka but J. Bl. suggests Dravidian origin)

(iv) OIA dh MIA h : Or. heṭa 'downcast' (adhastāt, adhiṣṭāt pk heṭṭha Buddh. skt heṣṭā, heṣṭhā).

Sometimes -h- is intrusive in initial position, viz. haṁsuḷi (aṁsa 'shoulder pk aṁsa) cf. B. hā:suli 'collar' OAw. hāsia,

The following words are of obscure origin, viz., hā: 'yes', hallā 'noise' (cf. skt halahalā 'applause'), hula 'sting' (pk hulai 'throws'), haṛa-baṛa 'confusion', haṭibā 'to retreat' (but Dr. Chatterjee suggests skt bhraṣṭa cf. ODBL p. 553).

(*B*) *Medial Oṛiyā -h- represents* :

(i) OIA kṣ MIA kkh : Or. lāhā 'lac' (lākṣā pk lakkhā), ḍāhāṇa 'right hand'

side' (dakṣiṇa- pk dāhiṇa), cāhîbā 'to want, to look at' (cakṣate pk cakkhai 'tastes', cāhai 'wishes').

(ii) OIA kh MIA h : O. Or. rehā (rekhā pk rehā, lehā) 'line' cp. O. Or. areha (arekha, BSAS); lihibā (cf. lihai, RM p. 74) (likhati pk lihai), sahi 'female friend' (sakhī pk sahī), nahuruṇi 'nail-cutter' (*nakha-kara to Turner, but *nakha-haraṇikā in ODBL p. 553), muhā 'mouth' (mukhaṃ pk muha), muhāṇa 'junction of rivers' (*mukha -ayana), O. Or. naha (nakha, UBh, RBR 46), sāhā (sakhā BGi), Or. cahalā 'muddy' (cikhalla pk cikkhalla, cikkhila, cikhalla, cikhilla), cf. Or. cikiḷa 'mud' OB cikhila.

(iii) OIA th MIA h : O. Or. nāhā (RM 56 etc) Mod. Or. nāhā: (nātha- pk ṇāha), kāhāṇi 'story' (kathānakam pk kahāṇaa), pahilā 'first' (cf. prathama, *prathilla pk pahillai Ap pahila), kahibā (kathayati pk kahei), O. Or. rahu ratha, RBh, RM 12th ch.); O. Or. gāhā (gāthā RM 1st ch).

(iv) OIA gh MIA h : Or. hāḷukā (laghuka), nehi, nehāi, 'anvil' (nighāti 'iron hammer' pk nihāya), bāhuṛibā 'to return' (vyāghuṭati), O. Or. mehu (megha- RBh, UBh 60, RB 51), amoha (amogha UBh, RM 23rd ch), jahana (jaghana, RBR).

(v) OIA dh MIA h : Or. koha 'sobbing' (krodha- pk koha), gahama 'wheat' (godhūmāḥ pl. pk gohūma), dahi (dadhi pk dahi), mahu (madhu pk mahu), mahurī 'a kind wind instrument' (madhu-kārika), bohū (vadhū- pk vahū), bihana 'seed corn' (*bīja-dhānya ? cf. ND), sāhu 'merchant' (sādhu- pk sāhu), doharā 'double' dohā, dohari 'a couplet double' (dvidha-, cf. skt dvidhā, dvidhātu- pk doha with extn of -ra-), nihāla 'very rich' (nidhi pk ṇihi), cf. B neyāpāti 'well developed (belly) with pleasures' (*nidhi-prāpti ?), pahiyā, 'wheel' (pradhi- 'felly, disc'), ahia (avidhavā), bahirā (badhira- pk bahira), bihibā 'to solve' (vidhi, vidadhāti pk vihi); O. Or. rāhī (rādhikā GBG, RM 19th ch. RBR 55).

(vi) OIA ph MIA h : Or. kahuṇi (kaphoṇi- pk kuhiṇi), siuḷi<sihuḷi (sephālikā).

(vii) OIA bh MIA h : Or. ābhira (ābhira-) 'cowherd', gahira (gabhīra pk gahira), nāhi (nābhi), pahañcibā [pk pahuppai, pahuvai 'is powerful, reaches', the etymology of which is doubtful; denom. verb of *prabhutvati (Pischel ff 299) or *prabhutya-; or connected with prāghurṇa- ? (J. Bloch) or I. E. *probheu-sko- (ODBL p. 344) for compare skt prabhavati 'is powerful' pā. pahoti 'suffices'; but Turner suggests: skt prabhūta- is replaced by pk pahutta after the type of siccai : sitta<sicyate : sikta or pkt lippai : litta< lipyate : lipta cf. ND p. 393]; Or. suhāge (saubhāgyam pk sohaggaṁ); śohe (śobhate pk sohadi); pāhibā 'to dawn', pāhānti 'daybreak' (cf skt prabhā-ka ra'su n 'i'prabhāta, prabhānam 'dawn', pk pahāya), ohaḷibā 'to hang'

(*avalabhate ? cf. ND p. 62, ODBL p. 544), Or. bāhāṛā (bibhītaka) O. Or. ste. prahu (prabhu BGi), balaha (vallabha RB 71) beside ballaha (RB 4th ch), O. Or. sohoṛa (śobhana-, RM 14).

(viii) OIA rṣ MIA h : Or. kāhāṇa (kārṣāpaṇa pk kāhawaṇa) cf. B. kāha'n Ass. kāon H. kahāwaṇ kāhan, kahān Sinhalese kahavuṇa (cf. CDIA p. 157).

(ix) OIA ś, ṣ, s, ṣy, sy MIA h : Or. ehā, ehu 'this' (skt eṣaḥ), guhāla, guāḷa (gośālā), nāhî 'is not' (na + *asati for nāsti cf. ODBL but to Bloch na-ābhavati) ; O. Or. sohaḷa, sohaṛa beside ṣoṛa (ṣoḍaśa pk soḷasa, soḷaha, soḷā), O. Or. hena (RBR 8 etc). cf. B chena (*etādṛśana>Ap. *eahana, cf. Bh. I: S. Sen, p. 133) tehāṛā, doharā 'three times' etc. (tri-sara etc)

(x) OIA h MIA h : O. Or. loha Mod. Or. luhā (loha pk loha), O. Or. kaḷihā (kalaha), pahara 'watch' (prahara- pk pahara), bahuta 'much' (bahutvam pk bahutta), kāhāḷa 'a caste' (cf pā kājahārako) cf. B kāhār ; ḍihi 'dwelling place', 'high ground' (skt dehī) ; O. Or. cuhāṇa (cauhāna), dahibā 'to burn' (dah-), Or dihuṛi (MBh) Mod. Or. dehuṛi 'vestibule' (cf. skt dehī, dehalī 'threshold'), duhibā (duh-), bāha 'arm' (bāhu-), bahibā 'to row' (vāhaya-), behorā 'a surname' (vyavahāraka), rohi 'a fish' (rohita-).

(xi) as -h- glide : O. Or. ābara Mod. Or. āhuri (apara- pk avara), dihuṛi (dīpavarti-), pohaḷa 'coral' (pravāla- pk pavāla), śahe (sata- pk saya), luha 'tears' (lotaka), mahaṇa 'one maund' skt manā 'a pc. gold weight' cf. Gk mnā loan from Semitic).

In Or. sohaḷa (*see before*), -h- is glide but it may be a case of transferred -h-, i.e. *soḷaha ; similarly, Or. snāhāna may be a case of h-glide or a contamination of *ts.* snāna and *tbh* ṇāha (Bull. Ph. S. Calcutta, vol. 1, no. 1), for the treatment of h-glide *see* also pp. 50-52

(xii) OIA ḥ as in O. Or bhurbhuba- svaha (PG 47) (=bhūḥ-bhuva-svaḥ).

(xiii) OIA rdh MIA ḍḍh (cf. ODBL p. 554) : O. Or. āhuṭa '3½' (cf. "āhuṭa hāta deuḷare, diā achanti e bhāvare" *vide* BSAS) [ardha-caturtha, *-turtha pk. aḍḍhuṭṭha) cf. Jn. āuṭha O Mai. ahuṭha Mai huṭṭhā Aw. hû:ṭhā ŚKK. āhuṭha MB āuṭ Bh. āhuṭh, āgûṭhā ; *see* also CDIA p. 29 for other cognates.

The groups śn, ṣṇ and sn become nh, ṇh in MIA which have lost their aspiration in Bengali, Assamese mainly ; but Oṛiyā has preserved them mostly like Bihārī languages.

Or. -h- occurs in a number of words of obscure origin ; for examples, Or. chuhārā 'dried date', pāhāṛa 'hills' (conn. with pāṣāṇa- cf. also pāśī stone), ṭhāhi 'joke', mahaka 'scent', nehurā 'request', ḍiha 'floor' etc.

CHAPTER XIV

STREES ACCENT IN ORIYA

There is a sharp controversy amongst the eminent scholars about the existence or non-existence of accent in NIA languages. This is more puzzling because of the fact that the Sanskrit Grammarians did not at all mention of a non-musical accent in OIA ; and this escape as to the nature, history and even the very existence of this accent in OIA and the subsequent stages, has left the modern speculations in a run of dispute and disorder of opinions. Nevertheless, the quantitative differences of vowels in NIA in the course of their history have induced the scholars to propound different theories for their explanation.

Pischel, while discussing the development of the Prakrit vowels, maintained that there are certain sound changes in the Prakrit dialects which can be ascribed only to the influence of an accent corresponding in positions with the tone of Vedic accent (Grammatik der Prakrit Sprachen ff 141-47). Jacobi denied the existence of stress or its effects in Prakrit and held that the accent of Prakrit was really of the nature of stress which corresponds in certain particulars with that of Classical Latin (cf. 'On accent in the Classical Sanskrit and the Prakrit dialects': H. Jacobi, Translated by S. N. Ghosal, published in the 'Journal of the Oriental Institute' ; Vol. X, No. 1, 1960). Grierson, supporting further the view of Jacobi, examined the question of accent in NIA in the light of this theory and tried to show that this stress of NIA caused quantitative changes in the vowels of NIA languages. ('On the Stress accent in the Modern Indo-Aryan vernaculars' ; JRAS, 1895 ; Indian Antiquary : Supplement, 1932, April). J. Bloch on the contrary, held that there is no need for a doubtful assumption of the accent in ancient times and the modern Indo-Aryan languages possess no stress whatsoever ('La Langue Marathe' ff 32-6; 'L' Accent d' Intensité' in the Bhandarkar Com. Vol. pp 359 ff.). Finally, Dr. Turner has exhaustively examined all the different views regarding stress accent in Sanskrit and Prakrits held by Pischel, Jacobi, Grierson and Bloch ; and supports the views of Jacobi as being applicable to all the NIA languages except Marāṭhī which follows a different scheme of accentuation.

We assume a hypothesis after Dr. Turner, whose view is a compromise between that of Grierson and of Jacobi and that of Pischel, that the Indo-Aryan vernaculars can be classed into two groups of which one (consisting Hindī, Gujrātī, Pañjābī, Bengali and Singhalese) descends from a Prakrit or Prakrits in which a penultimate stress developed ; and the other group represented by Marāṭhī comes from a prakrit in which the stress had developed on the same syllable as the Vedic accent ("The Indo-Aryan Accent in Marathi" JRAS 1916 p 204). Oṛiyā, a sister language of Bengali and Assamese has

similarly developed the above Pan-Indian system which may be enunciated as follows :—

> "In the Sanskrit-like language from which Oriyā sprang up, the stress falls on the penultimate syllable of the word if it is long ; if the penultimate is short, then on the ante-penulitimate ; if that again is short, then on the fourth syllable from the end".

Our investigation is to be directed in three lines, viz., (I) in the treatment of *tbh.* words in Oṛiyā where the above hypothesis holds good ; (II) in the treatment of old Oṛiyā *ts.* words mutated by the stress accent where the accent lies never beyond the third syllable from the end in accordance with the above hypothesis and (III) in modern Oṛiyā examples where the stress accent is predominantly initial if not otherwise shifted to the second long syllable.

The vowel changes of the *tbh.* words in Oṛiyā are to be treated in the following heads :—

A. Vowels in accented syllables :

(i) In open syllables ;

(ii) In closed syllables.

B. Unaccented vowels :

(i) Pre-accentual ;

(ii) Post-accentual.

C. Vowels with secondary stress.

I In tadbhava Words

A(i) VOWELS IN ACCENTED OPEN SYLLABLES

In open syllables except for OIA ai, au, ṛ, all vowels remain unchanged ; ai, au>e, o respectively which converged with OIA e, o ; ṛ>a, i or u which converged with OIA a, i, u.

Examples :

-a- : Or. khaīra (khádira) bhauṇī (*bháginikā)

-ā- : Or. bāli (v'ālukā) kumbhāra (kumbhak'āra) andhāra (andhak'āra) bhaṇḍāra (bhāṇḍāg'āra)

-i-, ī : pie (pívati) siê (s'īvati) āhira (ābh'īra)

-u-, ū : goru (gor'ūpa) dhūḷi (dh'ūlikā) dhuā: (*dh'ūmaka)

-e- : Or geru (gáirika) cheṇi (chédanikā) tela (táila-) déuḷa (dévakula-)

-o- : Or. rohi (róhita-) roibā (rópaya-) koili (kókila-) koha (kródha)

-ṛ- : Or. ghia (gh'ṛta) hia (h'ṛdaya)

A(ii) VOWELS IN ACCENTED CLOSED SYLLABLES

The long vowel before two consonants in OIA became short before double consonant or nasal conjunct in MIA. Usually in NIA the short vowel with the elision of one consonant becomes lengthened, if it is in the position of chief stress. As there is no distinction of length in sounds of the Oṛiyā vowels, the compensatory lengthening is recognised only in the case of -a- which becomes -ā-, e. g.,

OIA -a- : Or. kāndaṇā (krándana) bāũśa (váṁśa) māũsa (m'āṁsa)

OIA -ā- : Or. āpaṇa (*'ātmanaka) bhādua (bh'ād·apada)

OIA -ṛ- : Or. māṭi (m'ṛttikā) bichā (v'ṛścika) śikuḷi, śiṅkuḷi, sāṅkoḷī (*ś'ṛṅkhalikā)

Though accented open vowels are preserved in Oriyā, instances are not infrequent where -o- > -u- and -e- > -i-, for examples ;

OIA -o- > -u- : Or. rumi (róman) luha (láuha) O Or lohā (PP.GBG UBh) luṇa (lávaṇa) O. Or. loṇa (RM) kahuṇi (kaphóni) pua (póta) sua (sróta-) ālua (ālóka) muā: (módaka)

OIA -e- > -i- : diara (dévara-) dia (déva-) O Or dea (MP) kiā (kétaka) pariśi (*prativéśika) khia (kṣépa) dihuṛi beside dehuṛi (déhali)

From the above, it is evident that the tendency of raising the vowels, e, o is a recent development in Oṛiyā.

Sometimes, also in modern Oṛiyā OIA - o, u- > -a- in the syllables open or close, when in the position of stress. In the dissyllabic words, the first syllable is the penultimate and naturally the place of accent is unaltered. Examples :

Or. kaāḷa (kómala-) gaüṛa (gópa-la) janha beside O. Or. juṇha (jyótsnā) maṇḍa beside moṇḍa (m'ūrdhan-) thanṭa 'beak', tanṭi 'neck' (tróṭi, túṇḍa) ḍaṅgā (pk.dóṅgi) ḍama (pk ḍómba) chañceibā (cf śáuca) gahama (godh'ūma) dhaṇḍā (dúndhubha) cf B ḍhõṛā, Or. kaṛhi (kóra-, kóśa-) Ass kar.

B. UNACCENTED VOWELS

B(i) Pre-accentual Syllables

(a) Unstressed long syllables are shortened in Oṛiyā (as in Assamese). Examples : Or. pakhāḷe Ass pakhāle B. pākhāle (prakṣ'ālayati) upāṛe, opāṛe Ass. upāre B opṛāy (utp'āṭayati) bakhāṇa Ass bakhān B bākhān (vyākhy'āna) Or.marāe Ass marāy B mārāy (*mār'āpayati) Or. caḷāe Ass calāy B cālāy (*cāl'āpayati) Or. araṇā 'wild buffalo' (āráṇyaka-) Or. aîṭhā (ām'ṛṣṭa-) rakhuāḷa (rakṣāp'āla). Or. baṇijāra (vāṇijyak'āra) cp. Mid. B. Mai bānijāra Or. ālaṭa 'a big fan' (ālāvárta, *ālāaṭṭa) O Or. acābhuā (DR) 'astonished' Mod. Or. acābuā (atyádbhuta, pkt accabbhua) Or a(h)irī (ābh'īrī)

(b) OIA au, o > -u- in Oṛiyā, as well as in Assameso. Assamese sometimes, show -a- (ɔ) (comparo Ass. kapin < Skt. kaupīna, cf FA ff. 126). For examples: Or. suhāga Ass suwāg B sohāg (saubh'āgya) O.Or. cuhāṇa. (cauh'āna-MBh.M) Or. guhāḷa Ass guwāl B goyāl (goś'ālā-) Or. guhāri Mid.B gohāri (*gohak'ārika) O. Or. muhā:sa 'attraction' (mohap'āśa) guāḷa (gop'āla). B. goyālā ; Or. juhāra (jaya-k'āra *vide* ODBL p. 474 pkt. johāra) B. johār.

(c) OIA ai, e > -i- in Oṛiyā ; but Assamese usually shows -a- in an unaccented position (compare Ass bahāg > Skt. vaiś'ākha ; barāgi < Skt. *vair'āgyika etc. cf. FA ff 126), for examples in Oṛiyā : Or. śiuḷi (*śiv'ālika) B sagolā ; Or. niāḷi (naip'āli) cf B neyāli.

(d) OIA -a- > -o- (specially with the association of labials) Old Oṛiyā o, u Mod. Oṛiyā -u- Ass -o-, for examples, O.Or. juāî, jwāî (MBh. G) Mod. Or. joî (Skt. jāmātṛka *jaWāi, joWāi) Ass jõwāi ; Or. rakhuāḷa (rakṣap'āla) Ass rākhowāl ; O. Or. koṭoyāḷa (MBh) Mod. Or. kaṭuāḷa (koṣṭhap'āla) Or. taruāḷa (tarav'āri) cakuā O. Or. cakoyā (RBR) cakoā (SSN) (cakrav'āka) Ass cakowā, compare also Or. cakoī (cakrav'ākī) Ass cākai ; Or. ekoiśa (ekaviṁśati) O. Or. ūṇoisa (ūnaviṁśati) (MBh/U.) In the denominative and causative verbs of modern Oṛiyā, the same alteration of a/u in the unacconted syllables is seen to occur, for examples, kahibā/kuhāibā ; khāibā/khuāibā, the causative verbs.

(e) Initial short syllables beginning with a consonant remain, e.g. Or. guā (guv'āka) Ass guwā B guyā ; Or. muhāṇa 'junction of rivers' (*mukh'āyana) B mohānā ; Or. kuhuṛi (kuhélikā) kuāra (kum'āra) puruṇā (pur'āṇa) niā: 'fire' (nid'āgha pk ṇiāha) śiāḷa (śṛg'āla) pimpuṛi (pip'īlikā).

(f) Initial short syllables beginning with a vowel are often lost, viz. Or. lāu (al'ābu) riṭhā (aríṣṭhaka) also in B; Or. ḍimiri (udúmbara) B ḍumur ; base (upáviśati) also in B and Ass. Or. panāi (up'ānah) cf. O. Or. upāna (RB p. 61) Mid. B pānai Ass. pānai Mai. panahī.

B (ii) POST-ACCENTUAL SYLLABLES

(a) In post-accentual syllables OIA i, u > -a- in Oṛiyā ; for examples, Or. baṛaśi (váḍiśikā) Ass barahi B bāṛśi ; Or. āîṣa ('āmiṣika) Ass ā:hī B ā:iṣ, ā:ṣ ; Or. jhālara (jhállarikā) muṭha (múṣṭhika) also in B ; Or. paṇḍā (páṇḍita) B pāṇḍā ; Or. thaṇṭa (*tróṭika)

(b) Unstressed -a- is often elided, for examples, Or. gadha (gárdabha, gáddaha) Ass gādha B gādhā ; Or. kacheri (k'ṛtya-gṛha) B kāchāri ; Or. paghā (prágraha pk paggaha) Ass pāgha ; Or. nighā 'look, care' (nígraha)

(c) In the neighbourhood of accented vowels, post-accentual -v- is vocalised to -u-, viz., Or- bhādua (bh'ādrapada, *bhāddawaa) Ass bhāda ; Or. kādua (kárdama) Or. gaüṛa (gópa-la) śiśuā, śiśu (śíṁśapā pk. sīsava) .

(d) In the pre-accentual or post-accentual syllables, vowel assimilation often takes place, viz., Or. ḍāhāṇa (dákṣiṇa pk dāhiṇa) Or. ḍāāṇī (ḍ'ākinī) Or. ḍimiri (udúmbara) Or. śimiḷi, śimuḷi (śímbalika) "

C. VOWELS WITH THE SECONDARY ACCENT

If the unstressed syllable is farthest removed from the principally stressed syllable or in the initial position, the secondary stress (here underlined) is developed on the very syllable. In this position, usually short vowels remain unchanged, long vowels are shortened and consonant-groups are simplified without compensatory lengthening of the preceding vowel and sometimes the change of u, o > -a- takes place. For examples,

(a) Short vowels remain : Or. taruāḷa (tarav'āri) Ass tarowāl B taroyāl . Or. bhādua (bh'ādrapada) Ass bhāda ; Or. gadha (gárdabha) Ass gādha. Or. śiśuā (śiṁsapā pkt. sīsavā)

(b) Long vowels are shortened : Or. cakuā (cakrav'āka) Ass cakowā B cakā ; Or. rakhuāḷa (rakṣap'āla) B rākhāl ; Or. baṇijāra (vāṇijyak'āraka, pkt vaṇijjāraya) cp. Mid. B. Mai bāṇijāra

(c) In the position of secondary stress, OIA o, u > -a-, for examples, Or. gahama (godh'ūmāḥ) B gam Ass ghêhu ; Or. sajanā (śobh'āñjana) B. Ass sajinā ; Or. kaṭuāḷa (koṣṭhap'āla) O. Or. koṭowāḷa B koṭāl , Or. opāṛe, upāṛe (utp'āṭayati) dhaṇḍā (*ḍuṇḍubh'āka) cf B ḍhōṛā Ass ḍhōṛā ; Or. tame, tome (*tuṣm'ābhiḥ) ajāṛibā (udy'āṭayati) B ujāṛ ; Compare also O. Oṛiyā vowel changes in the *tss.* words, viz., ghaṭukādi (ghṭoak'ādi MBh) makunda ? (muk'unda, mak'unda) samabāra (somav'āra) garubāra (guruv'āra) in old inscriptions (*vide* EOLS).

STRESS-SHIFT DUE TO LONG FINAL VOWELS

All final vowe's following an MIA consonant disaapear in Bengali and Assamese. But Oṛiyā agrees with Maithilī and old Bengali in keeping the stress on the last long vowel developed either by contraction of MIA vowels in contact or by addition of a pleonastic vowel. In such cases the pen-ultimate long vowels become short. This type of shifting the stress from pen-ultimate or ante-penultimate to the final syllable is also found in Colloquial Assamese and Maithilī (compare Mai. Ass pānī 'water' but panīyā 'watery' cf. MG. p. 3, 16 FA ff 153, FM ff 56).

This phenomenon of stress was already noticed by Late Prof. B. C. Majumdar. To quote from him, "..In Oṛiyā the final syllable of a word is generally accented and this is why, (a) the final simple consonants are not pronounced *-hasanta-* (b) -rājā- has been reduced to -ṛajā- and the Apabhraṁśa form of -kāṁsya- is -kāsā- and (c) the half-nasal is placed on the final letters of such words as kāhî, yahî etc. ; it is noticeable that when the Bengalis write the Oriya words kāhî, yahî etc., they represent them as kā:hi, yāhi etc." (The History of Bengali Language, pp. 113-14). The assumption is quite true in case of dissyllabic words with long final vowels in modern Oṛiyā ; but in

polysyllabic words, the final long vowel is beyond the ken of the primary stress (*see infra*). Nevertheless, the changes of unaccented vowels for the final accent show at least the earlier shift of stress due to long final vowels in Oriyā and other Māgadhan languages alike. The changes may be shown thus :

(a) The double forms which vacillate among themselves for the shift of accent. Thus, O. Or. māthā but mathā (MBh/B, Bh) (Skt. mastaka) ; rājā but rajā (o) (insc. MP) ; pākha but compare O. Or. pakhā (BNG 5th chānda) (Skt. pakṣa) ; ākañchā (RM p. 20) (Skt. ākāṅkṣā) but kāñchai (Skt. kāṅkṣati. RM p. 20) ; Compare also Modern Or. cāṣa/caṣā, bāṅka/baṅkā, phāṭa/phaṭā, bāṭa/baṭā (*vide* OBI), kāpaṛa/kapaṛā.

(b) The loss of the long vowels after compensatory lengthening when the accent shifts to the final long vowel. Thus, Or. sajanā (śobh'āñjana), āḷā ('āmalaka), aḷatā (aláktaka), akharā (akṣav'āṭa), bichaṇā (vicch'ādana), chatī (chátraka), alagā (alágna), agaṇā (áṅgana), loharā (lohak'āra. pkt. lohāra), bati (vártikā), siṅgaṛā (śṛṅg'āṭaka), araṇā (āráṇyaka), āmbaṛā (āmr'ātaka) baṅgaḷā (vaṅgap'āla).

(c) Qualitative change of the accented vowels with the shift of accent. Thus, khaṇatā (khanítra), sāhāṛā (śākhóṭaka), bāhāṛā (bibhítaka, pkt. baheḍaa).

INITIAL STRESS

A study of few words reveals that at some time prior to the compensatory lengthening of short vowels before consonant groups, a shift of accent took place by which all words received accent on the initial syllable except those containing long vowels in their non-final syllables in which case the accent fell on the syllable containing a long vowel that was nearest to the final syllable. This can be deducted from the following facts :—

(a) The initial vowel is lengthened without any other phonetic cause : For examples, O. Or. sābata (sapatnī) (MBh/G) O. Or. cābiśa (caturviṁśati (MBh/U.) O. Or. ābara Mod Or. āhuri (apara) Or. post-position pāî 'for' (prati, if not from tmā cf. ND p. 371) Or. āu 'and' (api) pāhānti 'daybreak' (cf. prabhāta) Or. yāā:ḷā 'twin' (yamalau or from yāmalam) Or. hālukā (laghuka, if not from lāghava cf. ODBL p. 633) kāhāṇi (kathānikā) māhāṅgā (mahārghya) māhunta (mahāmātra) *sts.* śāguṇā (śakuna).

(*see* also under 'Initial Vowels' pp. 17, 115, 124 for further examples)

(b) The qualitative or quantitative change of the vowel stressed takes place in non-initial position. In some case syncopation even occurs in non-initial syllable owing to initial stress (for the treatment of syncopation *see* pp. 35-37, 214).

For examples, Or. phiṭikiri (sphaṭik'āri) haḷadī (harídrā) maṇiṣa (man'uṣya, if not after the analogical formation of pkt purisa) pāliṅki (paryáṅka) O. Or. sābata (sapátnī) pālaṭa (paryásta) binati (vijñápti).

II in tatsama Words

From the historical and comparative study of the *tadbhava* words of Oṛiyā and other Māgadhan languages in the above line, it is evident that in the Neo-Māgadhan stage, the hypothesis of Pan-Indian system of stress (expounded by Grierson and Jacobi) is quite befitting. In the next stage of development, the stress system of early Oṛiyā has deviated slightly from the usual norm. It is to be observed that the stress never goes beyond the third syllable from the end. The sole materials for such observations are *tatsama* words changed in represented orthography to suit the colloquial habit of accent. Of course, the orthographic habit has invaded the domain of *tadbhava* words even in some cases. This has been worked out on the following principles :

(a) Sometimes post-accentual vowels are seen to be lost.

(b) Sometimes pre-accentual vowels are also seen to be lost.

(c) The gemination of consonant closing the stressed syllable in initial position.

(d) The lengthening of the accented vowel of the *tatsama* words without any phonetic cause.

(e) Shortening or qualitative change of the unaccented vowels.

It is also to be noted that in major cases, the syllable -ra- or -ar- is susceptible to such changes of dropping the vowel preceding or following. Sometimes even the metathesis of -r- takes place which is quite a regular and frequent tendency in Oṛiyā. The system of stress accent of early Oṛiyā is shown below :—

(a) In dissyllabic words, the initial syllable is always accented which is indicated by lengthening of consonant after the accented syllable or prevention of compensatory lengthening of short vowel followed by double consonants in MIA,

For examples: Old Oṛiyā inscriptions (*vide* EOLS): *thh*-, gáccha for gacha 'a tree'; tínni for tini (Skt. trīṇi): súnnā beside sunā 'gold'; máchcha (Copper-plate Insc. 1384 AD) compare macha (BNG 9th chānda) for modern Or. mācha (Skt. matsya); r'āchcha 'a road' (Skt. rathyā); ácchi for achi (Serial No. 40 Line 15, EOLS); dhillā for dhilā 'placed', or, dilā 'gave'; n'ucchā for nica? (Skt. nyañc); *tss*. kṣínna (BGP) for Skt. kṣīṇa; ś'āpya for Skt. śāpa (CM iv p. 69)

(b) Stress cannot be thrown farther back than the third syllable from the end if the following syllables are short. It can be shown thus:

(i) Lengthening of the accented pen-ultimate or ante-penultimate short vowel in words of three syllables or more.

Old Oṛiyā inscriptions: Bhīmākra (Bhīmákara), sthānāpati (sthānápati (*vide* EOLS).

Old Oṛiyā Literature: amṛtāśara (amṛtá-śara, MBh), biśāśato for biśá-śata (viṁśati śata, MBh), Pannagāśara, garuṛāśara, meghāśara (for Pannagá-, garuṛá-, meghá- śara, MBh/Sl), chapanakoṭi beside chapnākoṭi '56 crores' (BSAS, GBG, Bh. i) for chapaná-koṭi, biṣayārasa for viṣayá-rasa (BGi, BP), ghanāghana for ghaná-ghana (JC), debākathā for devá-kathā (JC).

(ii) In three syllabic words or more, loss of the preceding or following syllable of the accented vowel when all the syllables are short. Sometimes mutation of -a- to -i, u- in the unstressed position; or gemination of consonant closing the accented syllable.

Old Oṛiyā Inscriptions (*vide* EOLS): nagra (nágara), also in MBh, GBG etc.) narka (náraka, also in MBh, AKG etc.), gajapti (gajápati), yogibra (yogivara), gocre (gócare), Bhīmākra (Bhīmá. kara), sappaḷa (sáphala), sukkala (śu'kla, śu'kala).

Old Oṛiyā Literature: punarpi (punárapi, MBh/M), chapnākoṭi beside chapana koṭi (either chápana- or chapanákoṭi, BSAS), parśudhara (paraś'udhara, RB), jagatra for jagátara (BGi), Yognī (yóginī, MBh/U, BA, SNG), basti (vásati, insc. Bh), begre for bégare 'in speed' (RM) nabdhā (návadhā, Bh. ii), agru (águru, L.) parśudhanu (paraś'udhanu, CM. iv) drahasita (darahásita, MBh/B), gopyana (gópana, Bh. i, ii) dullaṇī beside dulaṇī (cf. Skt. duhitā, SC)., paṭṭaha (páṭaha, BB). In case of bhratha (GBG) bhrata (MBh/Sl. PBG) for Bharata and Bhārata respectively, the possible development was Bhárata >*Bhárta >Bhrat(h)a, compare old Oṛiyā bhrathā for Skt. bhartā (RM), ākraśai for ākarṣai 'pulls' (BGi), praba for Skt. parva (insc.) where metathesis

of ar/ra is very frequent. Similarly, anabrata (insc.) for anabarata 'frequently', the development being anabárata > *anabárta > anabrata.

(c) When the pen-ultimate syllable is long, it is accented, the ante-penultimate or the syllable before it being dropped or long vowel shortened.

Old Oriyā Inscriptions : gṛbāre for grubāre (guruv'āro) uprodha (uparódha) (also JC), prabradhamāne (pravardham'āne) parśurāma (par'aśur'āma, also SNG) prikṣā (par'īkṣā).

Old Oriyā Literature : bāunkoṭi (for bāuna-koṭi, Bh. i) totiṣkoṭi (for tetiśakoṭi Bh. i. SC. 4,45) purṣākāra (puruṣak'āra, GBh) antricha (antar'īkṣa, RM. 40) drahāsa (RM) darhāsa (MM) for darah'āsa ; apyāna for *appāna (ap'āna, BGi) akāśa (āk'āśa, ChG. etc.) aprādha for apar'ādha (BSAS, GBG) bitrake (PBG) byatrake (MM) bitarake (Inscr.) (for vyatiréka) amrādhi (for amar'ādi, Bh. i).

(d) When the ante-penultimate is long, the preceding syllable or the following syllable of the accented vowel may be dropped or long vowel shortened or mutation of -a- to -i, u-.

Old Oriyā Inscriptions prusotmadeba, prsotmadeba, prusottama (puruṣóttama-deva) pṛsotmadāsa (purusóttama dāsa) pramesvara, paramesruṅkara, pramesura (inscr. 16th c.) also parmeśvara, prameśvara (MP. Bh. ii) pramesore (MP) (for paraméśvara) bhubanesra (bhuvanéśvara) kalubarigeśvara (kalavaragéśvara) senāpti (sen'āpati) Māhāmaṃḍliku (mahāmáṇḍalika) Māhāpātraṅkra (Mahāpātráṅkara) uttreśvara (uttaréśvara) Gauṛesra (Gauṛéś-vara) Narāṇa (Nār'āyaṇa) kapadraka (kapárdaka)

Old Oriyā Literature : Pṛsottama (Puruṣóttama, BGi), ajrāmara (MBh. Ai) ajrāmra (ChG. AKG. SS) ajrāmbra (SS) ajāmbara (Bh. i) (ajar'āmara) śraṇāgata (śaraṇ'āgata, Bh. ii) chachandre (chachándare < svacchánda-, KK.GBG) aṭhcāḷiśa (aṭhac'āḷiśa, PG) prābhaba (par'ābhava, MBh/AS. 31) prohita (puróhita, BGi MBh/B. 25) digāmbara (digámbara, PP) digāntare (digánta, SC. 34) ghaṭukādi (ghoṭak'ādi 'horses', MBh./U) kṣauṇī (akṣáuhiṇī, BGi, MBh)

(e) In some cases, stress lies always on the initial syllable. They may be explained either as initial stress or the stress on the fourth syllable from the end when all the syllables are considered as short. In such cases, they are the sporadic relics of Pan-Indian system.

For examples : O.Or. arkhita (Bh. i), archita (Kaḷasā, Bh. i, ii) (arakṣita, pronounced possibly as -arakhita- ?), daśratha (daśaratha, RB), markata (BGi/MBh. Sl. 5), maratka (inscr.) (marataka), āskata (BGi, āsakta, for āsakata ?), prasna (BGi, prasanna, for parasana ?).

III In Modern Oṛiyā

The Expiratory system of modern Oṛiyā is noticeably deviating from that of the earlier system. Here it stands apart from Bengali where initial stress is always dominant. Oṛiyā finds its parallelism in standard colloquial Assamese where the accent falls either on the first or the second syllable from the left and never beyond (cf. FA pp. 69 footnote by G. C. Goswami where he differs from Dr. Kakati). Possibly Maithilī and Bhojpurī have preserved the old system of accent more faithfully than the eastern Māgadhan languages. Bengali is farthest apart from Maithilī and Bhojpurī; whereas Oṛiyā and Assamese are intermediate between them. The modern stress system of Maithilī and Bhojpurī may be summarised thus :

(i) In words of two syllables, the initial vowel gets the accent ; but if the final vowel is long and the initial short, the final vowel has the accent in Maithilī (FM ff 27 ODBH. ff 74).

(ii) One of the last three vowels, that which is long, gets the accent, if more than one are long or all are short, the pen-ultimate gets the stress.

(iii) Accent cannot be thrown further back than the third syllable from the end.

(iv) The shift of accent to the final long syllable is always conditional.

The modern tendency of Oṛiyā accent system perhaps had originated in earlier times when there has been developing a tendency of stressing the second syllable from the left. Examples may be gathered from here and there which show the advent of the existing system. Few examples culled from earlier documents are shown below :

O. Or. dinācāri, dinākete (MM), devādevī (also BSAS) for Skt. deva-devī ; Or. ḍakāḍaki 'calling' (also in MM) compare B ḍākāḍāki ; O. Or. Mayāna (Skt Madana, UBh etc.) ; aśiṇa for proto-Or. *āśiṇa (Skt. āśvina, GBG) ; kaniara (Skt. karṇikāra, pkt. kanniāra, Proto-Or. *kāniāra ; also in GBG) ; Or. panāi 'a sandal' (Skt. upānah *pānai), cf. O. Or. upāna (GB p. 61) Mid. B pānai, Mai panahī ; Or. diāśili 'a match-box' (Skt. dīpaśalya, -śali) ; Or. sajaḷasa 'resin' (Skt. sarjarasa) ; O. Or. anyācāra, (Skt. anācara, CM iv p. 67) ; O. Or. pramabrahma (Skt. Parama-Brahma, CM ii p. 109) ; Or. Kanāuja (Skt. Kānyakubja pkt. kaṇṇaüjja *kānauja, MBh etc.) cf. kanyāuja (PSN p. 3) ; O. Or. lājjyābaḷī (Skt. lājāvalī 'fried rice', BB p. 164) khiḷa (akhila, Rasakulyā), japāmāḷi (MBh/U) śudrāgarbhe (MBh/U).

It is to be noted from above that in most cases the accent on the second syllable from the left in Oṛiyā words converges with the position of third

syllable from the last of Skt. forms. Here lies the clue of progression of stress. This shift being counterpoised by the length of vowel in initial syllable has given rise to the modern system of respiratory stress accent in Oṛiyā where the stress always vacillates between first and second syllable. The stress-system of modern Oṛiyā may be enunciated thus : Stress is always on the initial vowel if it is not followed by an immediate long vowel -ā-, diphthong or a syllable closed by a long consonant or group behaving as such in which cases the accent shifts to the second syllable (cf. Or. pátthara : ih'āṅkara/bāh'āra : haséibā : sam'undara/duhíṅkara).

The presence or absence of stress in modern Oṛiyā is to be perceived in the following ways :—

(i) An initial syllable with primary or secondary stress becomes closed with the lengthening of the single consonant of the next syllable which is not shown in orthography. Here, the vowel of the accented syllable before a geminated consonant loses its normal length. For instances, Or. m'ukka (Skt. mūka), r'uppa (Skt. rūpa), pátthara (Skt. prastara), j'ātti (Skt. jāti) etc.

(ii) But if the initially stressed syllable is followed by r, h, ṇ, ḷ there is no gemination but lengthening of accented vowel (not shown in orthography). For instances, Or. ghóra, jáḷa, sáhaja (*tss.*); gṛa, káṇa etc.

(iii) The rule of gemination does not hold good when the stress lies on the second syllable notably with -ā , diphthong or closed with consonant cluster. For instances, Or. bāh'āra, caléibā from cālibā 'to move', rahíbi, duhíṅkara etc.

(iv) The tendency to drop the unaccented final or middle vowel is also to be noted. For instances, Or khar(a)ca, 'expenses', khur(a)pi 'a digging instrument', nagra (Skt. nagara), kar(a)ta 'a saw', parśu (Skt. paraśu) beside phār(a)sā, narka (Skt. naraka), hāl(u)kā 'light', basti (Skt. vasati), pāt(a)lā 'thin', chiṭ(i)kiṇi 'a pellet-bow', pālki beside pāliṅki (Skt. paryaṅka); chil(a)kā 'crust', bār(a)sī 'an instrument for scraping wood', bārhā (Skt. varāha), bheḷ(i)ki 'magic', baṅgḷā (vaṅgapāla), taruāl (taravāri), uprodha (Skt. uparodha), ālpanā (ālimpana). Also compare imp. 2p. sg. kar, dekh etc., and words like ṭhik, beś, darkār, cup, khub, kam etc.

(v) Besides, a pre-accentual or post-accentual vowel loses its length or is reduced to *schwa*. For instances, Or. sáhoja, káṭṭoka, móro, c'ākiri, kaṭ'āḳaṭi, caléibā from cālibā etc.

(vi) Often is to be noted a qualitative change of the unaccented vowels, viẓ., e, o > i, u,a, or a > u etc. when a shift of accent takes place. For instance, ráhibā : ruh'āibā, oj'āṛibā : aj'āṛibā, débā : di'āibā etc.

SYSTEM OF STRESS ACCENT IN MODERN OṚIYĀ

(i) Words of one syllablo havo their vowels always stressed. Thus, Or. 'āu 'and', sé 'he', kéi 'any one', mû 'I', káṇ 'what', bí 'also', y'āe 'goes', yé, yéû 'who' etc.

(ii) In words of two syllables with short final vowel, the initial short vowel has tho accent. Thus,

Or. gácha (i. e., gáccha etc.) 'a tree', bhókha 'hunger', kíchi 'anything', kéte 'what quantity, how many', yéto 'as much', g'uṭe, góṭie, góṭye 'a piece', máte, móte 'to me, for me', t'ume, táme 'you', néba, nába 'will take', hába, héba 'will be', ṭíkie, ṭíkye 'a piece', gáli 'I went', góṛa 'feet', báṛa 'big', déuḷa 'a temple', éka 'one', káṇ(a) 'what', n'uhe 'is not' etc. Also in *tatsama* words, rátha 'a chariot', m'uka (Skt. mūka) 'dumb', mána 'mind' dhána, 'wealth' etc.

The bound morphemes -thi, -ṭhi etc., are not accented, for instances, káûṭhi 'where', yáuṭhi 'where', éithi 'here', móra 'my' etc.

In words of two syllables, if the final vowel is short and the initial long, the initial vowel is accented. Thus, Or. 'āji 'to-day', k'āli 'to-morrow', b'āli 'sand', b'āpa 'father', p'ākha 'side', k'āna 'ear', n'āka 'nose', n'āhi 'is not' h'āta 'hand' etc. Also in *tss.* j'āti 'nation' d'āna 'gift', p'āda 'foot' etc.

In words of two syllables, if the final vowel is long and the initial short or long, the final bears the accent. Thus, kaṇ'ā 'one-eyed' cf. B. kānā, sun'ā 'gold', pan'āi 'sandals', raj'ā 'king' cf. B rājā, od'ā 'wet', eh'ā, e'ā 'this', chu'ā 'child', baḷ'ā 'a bangle, cf. B bālā, gal'ā 'he went', śaḷ'ā 'brother-in-law' cf. B śālā, ghoṛ'ā 'a horse', jaṇ'ā from jāṇibā 'to know' cf. B jānā, kaṭ'ā from kāṭibā 'to cut' cf. B. kāṭā. The bound morphemes are also not accented, viz., t'āṅku 'to him', t'āra 'his' etc.

Double stress is also to be met with in some dissyllabic words with final long vowel, when there is a diphthong or a vowel closed with consonant cluster. For instances, Or. aîṭhā, aiṇṭhā 'touched (food)', paṇḍā 'a Brahmin', ṭaṅkā 'a rupee', aṇṭā 'waist', paisā 'a pice', Skt. Sītā 'a mythological heroine' is pronounced in Oṛiyā as Sītyā etc.

(iii) In words of three syllables, if all the vowels are short, the initial bears the stress. Thus,

Or. étiki 'so much', pókhuri 'a pond', támara, t'umara 'your', bhítara 'inside', kém(i)ti 'how', yém(i)ti 'just as', Káṭaka 'Cuttack', khábara 'news' etc. Also *tss.* gábhīra, mádana, śávara, ápara, sáhaja etc. Exceptions are to be found in verbal forms such as rahíbi 'shall remain', rakhíbi 'shall keep' etc., where the initial syllable is not long (*see infra*).

In three-syllabic words, if the initial syllable has a long vowel -ā- or diphthong or is closed by a consonant cluster, the accent lies on the first syllable. Thus,

Or. 'āmari 'our', 'āpaṇa 'self', c'ālibi 'shall move', ṭh'ākura 'an image of god', ánnasthā (Skt. anyathā), Lákkhyaṇa (Skt. Lakṣmaṇa), c'āk(i)ri 'service' ; Also in *tss.* m'ādhava, 'ādeśa, m'ānava etc.

But the accent shifts to the second syllable when it has a long vowel ā, or diphthong or is closed by a consonant cluster, the initial syllable remaining short or long. Thus,

Or. uj'āṛibā, oj'āṛibā, aj'āṛibā 'to give completely', up'āṛibā, ap'āṛibā 'to uproot', andh'āra 'darkness', beb'āsthā (Skt. vyavasthā), ih'āṅka, i'āṅka, 'āṅka 'of this', du'āra 'door', ak'āśa (Skt. ākāśa), panj'ābi cf. B pānjābi 'the inhabitants of the Punjab', haj'āra cf. B. hājār 'one thousand', cuc'undrā 'a mole', bāh'ara 'outside', khu'āibā, khw'āibā 'to feed', paṭhéibā 'to send' etc.

(iv) In words of more than three syllables, all being short or the initial long with ā, the accent lies on the first syllable. Thus,

Or. jéttebeḷe for yetobeḷe 'when', tétebeḷe 'at that time', kétedina 'some days', éhipari 'in such manner', M'ussalamāna 'the Muslims', Khéddirapura for B Khidirpur 'a locality in Calcutta', sétikibeḷe 'at that time', tátkhyaṇāta (Skt. tatkṣaṇāt), séteboḷaku 'at that time', étebaṛa 'such a big', n'āka-kāna 'nose and ear' etc.

In such polysyllabic words, if the second syllable is long with ā or with diphthong or is closed by a consonant cluster, the accent shifts to the second. Thus,

Or. duhíṅkara 'of the two', ih'āṅkara, 'āṅkara 'of this', guh'āriā 'petitioner', ḍak'āḍaki from ḍākibā cf. B ḍākāḍāki 'calls'. kaṭ'ākaṭi from kāṭibā 'to cut, slay', cf. B kāṭākāṭi, haṇ'āhaṇi cf. B hānāhāni 'slaughter', randh'ā-baṛā 'cooking etc.' from rāndhibā cf. B rā:dhā-bāṛā, aj'āṛuchanti '(they) are giving completely', Baṭṭ'ānagara for B Bāṭānagar 'a place near Calcutta', sam'undara (Skt. samudra) etc.

Besides the above, the application of the stress system in some of the grammatical categories of Oṛiyā is shown below :

In dissyllabic nouns and derived adjectives of same length, the accent lies on the first syllable if the final syllable is not long in which case the accent shifts to the final (Compare Oṛiyā gácha : b'āpa : sun'ā : jaṇ'ā from j'āṇibā etc).

The same initial stress is also to be noticed in a number of trisyllabic nouns and derivatives or original adjectives; but if the second syllable is long or behaves as long, the accent changes its position (Comprae Oṛiyā páthara : ṭh'ākura : haj'āra : bāh'āra etc).

In polysyllabic words and compounds, there is initial stress if the second syllable is short; otherwise the non-initial stress develops on the second long syllable (preferably a root syllable). Compare Oṛiyā tétobelo : 'āpaṇaṅkara : ih'āṅkara : bāh'ārile etc.

Verbs in the Radical Present tense (simple) have initial stress i. e., stress on the root, viz., káre, kára, kári, káru. kárantu ; kh'āo, kh'āa, kh'āānti, kh'āu etc. dékho, dékha, dékhi, dékhu, dékhantu etc.

In the non-honorific singular of the imperative mood of present tense, the initial vowel bears the accent, viz., tu kár, tume kára ; tu dékh, tume dékha ; kh'ā, kh'āa ; tu hó, tum(bh)e h'ua, se hóu, somāne h'uantu etc. In negative verbs of dissyllabic nature, the accent lies on the first syllable, viz. n'āhî 'is not' nóhu 'we are not', n'uhe 'you are not' etc.

Verbs in the Participial past and future tense (simple) have stress either on the first syllable of a two-syllabic word or on the second syllable of a polysyllabic word if the first syllable is not long, viz, gále, kála, kahíli, dekhíle, karíle, pac'ārile etc., but p'ātila, p'āila, n'ācile etc. Also héba/hába, yíbe, yíba, hóiba/héba, rahíbi, dekhíbi, karíbe, pac'āribe etc. but p'āriba, p'āibe, 'ānibe.

In the formation of the periphrastic tenses, the accent lies always on the first syllable if long, otherwise on the second syllable of a polysyllabic root ; but if the verb is monosyllabic, the root is stressed and not the substantive verb. Thus,

Or. mu karí-achi beside karíchi ; rakhí-achi beside rakhíchi ; karíthile, likhíthelā etc., but 'āsithilā beside 'āsithelā, n'ācithili etc. In monosyllabic roots, kh'āu-achi beside kh'āuchi ; kh'āichi ; hóuchi, héuchi, y'āithilā, y'āuthili etc.

Causative verbs in āi/ei take the stress on the affix. The stress on the second syllable affects the initial vowel which is expected to change in quality or quantity. The usual changes are : -ā- > a ; -e- > i ; -ā- > u. For examples, debā 'to give'/causative di'āibā ; pācibā 'to ripen, cook'/pacéibā ; lāgibā 'to stick'/lag'āibā ; māribā 'to beat, kill'/mar'āibā ; khāibā 'to eat'/ khu'āibā, rahibā 'to remain'/ruh'āibā ; kahibā 'to tell'/kuh'āibā etc.

In Denominative verbs also, the above rules hold good ; but here, the qualitative or quantitative change of the initial vowel is not frequent. The length of the initial or the second syllable regulates the nature of stress Thus,

Or. kāna 'ear'/kānéibā; in rare cases, paṅgu 'lame'/peṅgéibā etc.

In other formation of conjunctives, compound verbs etc. the stress is always on the main verb. Thus,

Or. hói galā, c'āli galo, néi kiri, baséi kiri, bhas'āi déi kiri, karánto 'while doing', kar'û karû etc.

In pronouns, the accent lies on the first syllable of the pronominal root if the second syllable is not long in which case the accent shifts to the latter. In no case the incorporated post-positional affix is accented. Thus,

Nom. pl./Oblique sg./obl. pl : 'āme : mó : 'āma cf. móte, máte 'to me, for me', 'āmara, móra, móhara etc. t'ume, tíme : tó, tóha- : táma ; eh'ā, ih'ā, e'ā, y'ā- compare y'āṅka for eh'āṅka, t'āṅka for tāhāṅka, 'āpaṇa, 'āpaṇaṅkara etc.

CHAPTER XV

PHONETICS

Below is given a description of a type of dialectal Oṛiyā, viz., the standard one. The standard dialect is current about Puri and Cuttack districts of Orissa. The writer has examined several speakers of the dialect in Orissa and has even verified that of the speakers dwelling in Calcutta. Thus it may safely be regarded to represent as far accurate as possible the pronunciation of average speakers of the standard form of Oṛiyā language.

Oṛiyā has altogether thirty-nine essential phonemes excluding the nasalised vowels. Of these six are vowels and the remaining thirty-three are consonants including eleven aspirates. The non-phonemic sounds are bracketed below in the chart.

The principal Oṛiyā phonemes are represented in the following Table I(a) and (b) :—

TABLE I

The Oṛiyā Sound System

(a) CONSONANTS

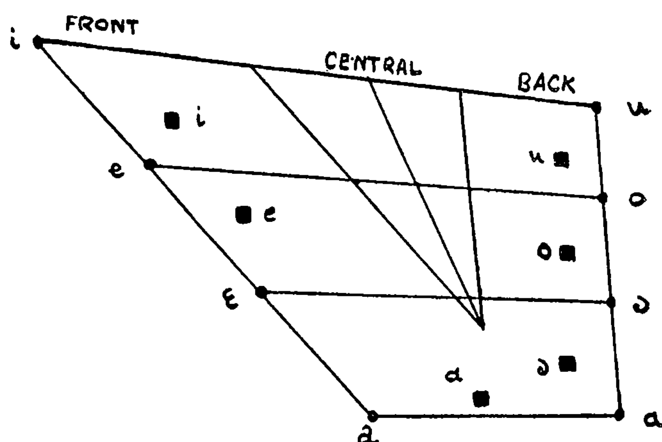
	Bilabial	Dental	Alveolar	Retroflex	Alveolo-palatal	Palatal	Velar	Glottal
Plosive ..	p, ph b, bh	t, th d, dh		ṭ, ṭh ḍ, ḍh			k, kh g, gh	
Affricate ..					ć, ćh j́, j́h			
Nasal ..	m, (mh)		n, (nh)	ṇ		(ñ)	ṅ	
Lateral ..			l, (lh)	ḷ				
Rolled ..			r, (rh)					
Flapped ..				ṛ, ṛh				
Fricative ..					ś			h
Semi-Vowel	w					j		

(b) VOWELS

	Front	Central	Back
Close	i: , i		u: , u
Half-close ..	e: , e		o: , o
Half-open ..			ɔ: , ɔ
Open		ɑ: , ɑ	

TABLE II

Formation of Oṛiyā Vowels



Cardinal Vowels : black

Oṛiyā Vowels : —

The positions of Oṛiyā Vowels in relation to that of Cardinal vowels are represented in the diagram given above (*see* also EOLS, the diagram facing p. 392).

DETAILED DESCRIPTION OF THE SOUNDS

THE VOWELS

The Vowels -i- and -i:-

The vowels -i- and -i:- are represented by -i- and -ii- letters of Oṛiyā. The close front vowel (i:) of Oṛiyā is slightly lower than the cardinal vowel (i) and tends to be slightly retracted from the cardinal position. In its articulation the tip of the tongue is raised towards the hard palate without causing any audible friction.

Oṛiyā short (i) is lower than the corresponding long sound. It is very laxly pronounced more than Bengali and the articulation is below half-way between the cardinal (i) and cardinal (e). Short -i- in initial syllables very often tends to become -e- in the standard dialect, viz., Or. dilā/delā, thilā/thelā, tintuḷi/tentuḷi etc.

Daniel Jones has also distinguished between an open -i- and a close -i- and the latter has been represented by -y-, for instances, Or. (kye) for kie, (hoy) for hoi, (ney) for nei, (goṭye) for goṭie, (mɔdhyɔ) for madhya, (surjyɔ) for sūrya, (pɔrikhya:) for parīkṣā etc. (D. Jones: 'A Romanic Orthography for the Oṛiyā language' published in Siddha Bharati, ed. Visva Bandhu, pp. 66-67). Prof. Ghatage has further noticed: Oṛiyā -i- becomes very short (i) before a cluster of a nasal and a stop and has a retracted articulation before the retroflex lateral -ḷ- (Ghatage: HL p. 133).

Both the vowels occur in all the positions. Following are the examples :—

(i:) : piibā 'to drink', siībā 'to sew', jiibā 'to live', (kɔri :bi) written karibi 'I shall do', (nāhi:) written nāhi 'was not' etc.

(i) : tini 'three', yibā 'to go', (git:ɔ) written gīta 'song' etc.

(i) or (y) : niantu 'let him take', diara 'husband's younger brother', diā 'god', kiā: 'why', ghia 'clarified butter' (*see also above*).

The Vowels -e- and -e:-

Both the vowels, -e:- and -e-, are represented by e-letter of Oṛiyā. Oṛiyā (e:) is a half closed front vowel and its position is a bit higher than half-way between the cardinal -e- and -ɛ- like Bengali and comparatively lower than the Bihārī languages. In its pronunciation the position of the raised part of the tongue is a bit farther back than in the case of the cardinal -e-.

Oṛiyā short (e) is about half-way between the cardinal -e- and cardinal -ɛ-. In its articulation, the tongue approaches more a central position. These vowels are laxly pronounced and there is no tendency towards diphthongisation. The retraction of (e) often causes the interchange of -e- and -a-, viz., Or. debā/dabā, hebā/habā, nebā/nabā etc. Prof. Ghatage has observed the following allophonic modifications : Or. (e) is lowered when the next syllable has the vowels, e, ɔ, a and is centralised before a retroflex consonant or lateral (Ghatage: HL p. 138)

In pronouncing the final -e- of a monosyllabic word, a -y- is often geminated before it. Thus Or. ke> kie 'who', se> sie 'he', e> ie, ye 'this' etc.

Both the vowels, -e- and -e:-, are found in all the positions. Examples: āme (ame:) 'I', tame (tɔme:) 'you', kie (kye:) 'who', hebā (heba) 'to be', debā (deba) 'to give', eṛe (e:ṛe) 'such', kete (ket:e:) 'how much' etc.

Sometimes Or. -e- becomes an indeterminate vowel -ɔ- in an unaccented position (*see below*).

Oriyā (ɛ) is a sound rarely heard among the speakers of Standard Oriyā, although it is common in the dialect of Balasore, a northern dialect. In this dialect, the phoneme -e- followed by -ā- becomes regularly -ɛ-, though -e- is frequently met with in different cases. (*See* under 'Introduction').

The Vowels -*a*- and -*a*:-

The vowel (*a*) is represented by ā- letter of Oriyā. The long vowel (*a*:) is represented by the similar -ā- letter and often by -āā- letters.

In the articulation of (*a*:), the middle of the tongue is slightly raised, while its body is a bit retracted as it lies low down in the mouth. It is much more a central vowel than the English open vowel -*a*-. In its articulation the opening between the jaws is medium to wide and the lips are not rounded. It has a half-way position between front and back.

Short (*a*) is slightly higher than long (*a*:). It is raised towards the cardinal (ɔ) position and in its pronunciation the tongue raised up is not exactly in the midway position but slightly towards the back than in case of (*a*:). The opening between the jaws is narrower for (*a*) than for (*a*:).

The two sounds are found in all positions.

Examples: āji (*a*ji) 'today', kāli (k*a*li) 'tomorrow', nā, nāā (n*a*:) 'boat', nā̃: nāā̃: (nã: :) 'name', gāā̃: (gã: :) 'village', yāānti (j'*a*:nti) 'they go'.

The Vowels -ɔ- and -ɔ:-

These are represented by a-letter of Oriyā The long (ɔ:) is sometimes represented by -aa- letters.

In the articulation of long (ɔ:), the back of the tongue is raised towards the middle of the palate. It is also a bit lower than the cardinal (ɔ). It has a slight lip rounding. The opening between the jaws is from medium to narrow.

Short (ɔ) is slightly lower than the cardinal vowel (ɔ), but considerably higher than the English sound -*not*-. This (ɔ) tends to move forward towards (ʌ). Oriyā final (ɔ) never becomes a very lax and open kind of -o- or a frank -o- like -a- pronunciation in Bengali 'bhāla'- (bh*a*lȧ, bh*a*lo). In the articulation of Oriyā (ɔ), ordinarily there is very little lip rounding. But

this (ɔ) is slightly rounded before the retroflex consonants and low vowels in the next syllables (Ghatage: HL p. 138). Sometimes in an unaccented syllable (ɔ) becomes a regular central vowel (ə), for instances, Or. kaṇa (kɔ:ṇɔ, kɔ:ṇ), sahaja (sɔ:hɔjɔ), karata (kɔrɔtɔ, kɔrtɔ), naraka (nɔrɔkɔ, nɔrkɔ), baṅgaḷā (bɔṅɔḷā), baḷada (bɔ:ḷɔdɔ), samundara (sɔmundɔrɔ) etc.

Both the sounds are found to occur in all positions.

Examples: kaaṇa, kaṇa (kɔ:ṇɔ) 'who', naa, na (nɔ:) '9', jaḷa (jɔ:ḷɔ) 'water', caãra (cɔ~ɔ) 'a fan' etc.

The Vowels -o- and -o:-

Both the vowels are represented by a single o-letter of Oṛiyā. When it is long it is a vowel of rather high quality and is lower than the cardinal (o) but a bit higher than the mid point between the cardinal (o) and cardinal (ɔ). The short (o) of Oṛiyā is slightly lower than the mid-point between the cardinal (o) and cardinal (ɔ). Besides, the short (o) would appear to be advanced midway between the back and the central positions. The lip rounding is not so great as in the cardinal sound. The opening between the jaws is narrow.

The vowel is laxly pronounced and there is always an interchange possible between (o) and (ɔ), viz., ḍoma, ḍama 'a caste', tome, tame 'you', mote, mate 'to me' etc.

Both are found in all positions.

Examples: oṭha (oṭ:hɔ) 'lip', goru (go:ru) 'cow', mote (mote, mɔte) 'to me', ghora (gho:rɔ); pokhiri (pok:hiri) 'pond' etc.

The Vowels -u- and -u:-

These are represented by -u- and -ū- letters of Oṛiyā alphabet. But the length is not always shown by the proper letter and sometimes the long (u:) is heard in the pronunciation of the letters -uu-. These vowels present a parallel to the -i- and -ī- sounds, the difference being that the former are rounded and back vowels.

The vowel (u:) has somewhat an advanced and lower position than the cardinal vowel (u). So far as the height of the tongue is concerned, it is below half-way between cardinal -u- and -o-. It has no tendency towards diphthongisation.

The position of (u) is lower than (u:) and it is a bit advanced towards the central position. The lip rounding and tenseness are comparatively less than in the case of (u:). The opening between the jaws is narrow. Regarding the allophonic variations, (u) has a lowered variety before a retroflex sound like -ṇ- or -ḷ- and is very short (u) in the middle syllable of a polysyllabic word, viz., (kukurɔ) 'dog', (purusɔ) 'man' (Ghatage: HL p. 138).

Prof. Daniel Jones has also distinguished an open -u- from a close -u- for which he has suggested the letter -w- (D. Jones: A Romanic Orthography for the Oṛiyā language published in Siddha Bharati, ed. Visva Bandhu pp. 66-67). For examples, svāda (suado, swado) 'taste', juāi (jwa:î) 'son-in-law', khuāibā (khuaiba, khwaiba) 'to feed' etc.

Both the vowels occur in all positions.

Examples: dudha (dudho) 'milk', pua (pu:ɔ) 'son', sua (su:ɔ) 'current of stream', tumara (tumɔrɔ) 'your' etc.

The neutral vowel -ə-

There is a secondary development of a central vowel (ə) of intermediate quality in the place of a vowel in accentless position. In its articulation the central part of the tongue is raised to about mid-way between the 'half-close' and 'half-open' positions or perhaps a bit higher than this. In the final syllable of a dissyllabic word or the middle or interior syllable of trisyllabic or tetrasyllabic word, the vowels like (ɔ), (e) or (i) become usually a central vowel (ə) in unaccented position, for examples, kaṇa (koṇə), sahaja (səhojə), baḷada (bɔ:ḷəd:ɔ) baṅgaḷā (bəṅəḷa), samundara-re (sɔmundərəre), yetebele (j'et:əbeḷe), tetebele (tet:əbeḷe), yemiti (j'eməti), kemiti (keməti) etc.

NASALISATION OF VOWELS

All the six vowels in Oṛiyā, viz., i, e, *a*, ɔ, o, u can be nasalised, although the nasalisation of -o- is comparatively rare. In the articulation of the nasalised vowels the tongue is raised higher up than in the case of corresponding non-nasalised ones. In Oṛiyā the nasalised vowels are usually long. The nasalisation is due to the escaping of the air through the nose. For examples of nasalisation :—

(î), (î:) : sîîbā (sî:b*a*) 'to sew', cahîbā (cahî:b*a*) 'to look', pāî (p*a*î:) 'for', kaîcha (kɔî:chɔ) 'tortoise' etc.

(ê), (ê:) : dhāê (dh*a*ê) 'runs', soê (soê) 'self', cehôkā (ćehêk*a*) 'startle', chāê (ćh*a*ê) 'by self' etc.

(a∼), (a∼) : nã: (nã:) 'name', gāã: (gã::) 'village', niã: (niã:) 'fire' etc.

(ɔ∼), (ɔ∼) : kuã (kuɔ∼) 'a well', muha (muhɔ∼) 'mouth', kaãḷɔ (kɔ∼:ḷɔ) 'tender', caãra (ćɔ∼rɔ) 'a fan' etc.

(ô), (ô:) : oṃ (õ:), joî (j'oî) 'son-in-law' etc.

(û), (û:) : yeûṭhi (j'eûṭhi) 'where', kāhû (k*a*hû:) 'from where' etc.

In many cases the nasalisation of vowels seems to take place by the associative influence of the class nasals or nasalised vowels. Besides, Skt. -ṃ- causes sporadic nasalisation of the preceding vowel in the colloquial pronunciation of the standard dialect, for examples, Or. ahãkāra (ahaṃkāra), soê

(svayam), prasãsã (praśaṃsā), õ (oṃ) etc. In writing, however, the nasal sign is not shown.

The nasalisation causes semantic difference and consequently the nasalised vowels deserve to be considered to belong to phonemes other than their corresponding non-nasalised forms. Besides, the contrast is also valid even after a nasal consonant (compare, Or. nā:nã:, nai:naî etc. *see below*).

Examples: nā 'not'/nãã:, nã: 'name', nāā 'boat'/nãã: 'name', ui 'white ant'/uî 'having risen', kaî 'water lily'/kai 'vomitting', pāi 'one pie'/pāî 'for', paitā 'sacred thread'/paîtā 'soaked rice', dia 'body', 'do give'/diā 'god', dhūā 'washed'/dhũã: 'smoke', naī 'river'/naî 'having bent', pahãrā 'broom'/paharā 'guard', chuā 'child'/chuã: 'touched' etc.

VOWELS IN CONTACT

There are at least twenty-six cases of two vowels in contact. Some of them are diphthongs, while others form clearly two syllables with intervening glides. Besides, the clusters of similar vowels are not really diphthongs but simply vowels in conteact. The Oṛiyā system of writing, which is that of Sanskrit, recognises only two diphthongs, *-ai-* and *-au-* (ऐ, औ), although it is customary to place the vowels in contact side by side in the *tadbhava* words. The number of diphthongs (or triphthongs) actually found in the language is large.

The condition and scope of the formation of diphthongs out of a large number of vowels in contact has already been discussed in the previous chapters (*see* under 'Vowels in contact' pp. 48-49 and 'Diphthongisation of vowels' pp. 55-56) To recapitulate, all the vowels in contact may be categorised into four groups:

(a) a vowel plus high vowel, for instances Or. khaira, paisā, pāibā, dauṛi, dāu, koili, nāuri, neibā, hoibā, mausi, doi etc. in which case the combination is diphthongised and is of falling nature, the stress being on the first element.

(b) any vowel (except -ā-) plus -e-, such as -ae, ie, ue, oe- (the vowel plus -o- being not usual in *tbh.* words) in which case the glide is ordinarily an audible sound and a slow enunciation is perceptible, though the contact vowel -āe- in final position seems to be diphthongised in urban pronunciation (compare the pronunciation of -śae- 'one hundred' and -yāe- 'goes' in Oṛiyā). In the case of diphthong -āe-, it is also of falling nature.

(c) any vowel other than -ā- or -ā- plus -a- or -ā-, such as -ia, iā, ua, uā- in which case the contact vowel is diphthongised and the nature of the diphthong is 'rising' one, the stress being on the second element.

(d) similar vowel combinations like -aa, āā, ii, uu, oo- in which cases the glidic deliberation is not heard and either they maintain the hiatus without any intervention of a glide, or, sometimes, as in ordinary and colloquial pronunciation, are contracted yielding a resultant long vowel. In the former case the contact vowels do not form separate syllables and seem to be pronounced within the orbit of stress of 'level' nature. But as a matter of fact, the clusters of similar vowels form really a long vowel. For, the fact is that the similar vowels in contact are not very frequent, the combination of -ii- and -uu- being very rare and that of -ee- and -oo- being altogether absent. In case of -aa- and -āā- on the other hand, the contact is frequent but in most cases they contrast with the short vowel in meaning. This very fact has led Prof. Ghatage to conclude: "The systematic gaps of clusters of similar vowels is due to the presence of long vowels which contrast with short vowels and one can regard the few cases of long vowels as distinct from the short ones as clusters of similar vowels. Thus /kɔ:ṇa/ 'what' can be regarded as /kɔɔṇɔ/ and /phe:re/ 'again' as /pheere/ (in contrast with /koṇɔ/ 'corner' and /phere/ 'he returns'). In many cases, this is supported by the history of the words. (HL p. 138). *See* also pp. 48-49

All these vowels in contact can be nasalised, the second one being nasalised, for examples, diã 'god', caãrɔ 'a fan', bhoûrĩ 'a she-bee,' bhuî 'land' etc.

Beside the diphthongs, some triphthongal groups are also to be found, but they have clearly two syllables. They, too, can be nasalised, for instances, khũaibā 'to feed', chauā 'mottled', suāibā 'to lay in bed', dhûāibā 'to cause to smoke' etc.

The following are the vowels of two members in contact (the falling dipthong being italicized) which occur in Oṛiyā :—

-aa- as in naa '9', caãra 'a fan', chaa '6', jaa 'barley', bhaãra 'bumble-bee' etc.

-aā- does not occur.

-*ai*- as in paitā 'sacred girdle', naîbā 'to bend', khai 'fried rice' etc.

-*au*- as in dauṛibā 'to run', dauṛi 'rope' etc.

-ae- as in śae 'one hundred'.

-ao- does not occur and usually becomes -au-

-āɔ- as in pāa nāhî 'do not get'-

-āā- as in nāã: 'name', nāā 'boat'.

-*āi*- as in pāibā 'to get', dhāîbā 'to run'.

-*āv*- as dāuṇi 'a rope', chāuṇi 'a shed'.

-āe- as in yāe 'goes', khāe 'eats', nāeka 'a surname', nāeba etc.

-āo- does not occur and usually becomes -āu-.

-ia- as in dianti 'they give', diara 'husband's younger brother', diã 'god', ahia 'not a widow'.

-iā- as khiā piā 'eating and drinking', siā: 'sewing'.

-ii- as in piibā 'to drink', siîbā 'to sew', jiibā 'to live'.

-iu- as in śiukā 'one-fourth rupee'.

-ie- as in kie 'who', nie 'takes', goṭie 'whole'.

-io- does not occur and usually becomes -iu-.

-ua- as in kuã 'a well', pua 'son'.

-uā- as in dhūã: 'smoke', nuā 'new', chuā 'child'.

-ui- as in ui 'white ant', chuîbā 'to touch'.

-uu- as in śuukā 'one fourth rupee'.

-ue- as in hue 'becomes'.

-uo- does not occur.

-ea- does not occur and usually becomes -ia-.

-eã- does not occur and usually becomes -iā-.

-ei- as in kareibā 'to cause to do', haseibā 'to make laugh' etc.

-eu- as in keû 'who', keuṭa 'a fisherman'.

-ee- does not occur.

-eo- does not occur and usually becomes -io- excepting few foreign loans, for examples, śeo 'a kind of fruit', deo 'god', deovān.

-oa- does not occur and usually becomes -ua-.

-oā- does not occur and usually becomes -uā-.

-oi- as in bȯita 'boat', bhoi 'a surname', bhiṇoi 'sister's husband'.

-ou- as in bou 'bride'.

-oe- as in poe 'son', dhoe 'washes'.

-oo- does not occur but compare dooṛa 'to be done or cultivated twice'.

The Plosives :

The Velar Consonants, k, kh, g, gh

In the articulation of those sounds, the back of the tongue touches the soft palate and there is a complete closure of the air passage. These are Velar consonants in Oṛiyā. In OIA period, these were guttural sounds as the place of articulation was slightly backward. The articulation of k, kh in Oṛiyā is more forward than Bengali k, kh and approaches sometimes nearer to c, ch, especially before front vowels.

Aspiration and voice cause semantic difference ; consequently, the four sounds should be considered as belonging to different phonemes. Thus, kai 'vomitting'/khai 'fried paddy', kaṛa 'side'/khaṛa 'straw', kaṛā 'rough'/khaṛā 'a kind of vegetables', gāī 'cow'/ghāi 'breach', gāta 'hole'/ghāta 'blow', guṇa 'quality'/ghuṇa 'weevil', or, kāi 'tree-ants'/gāī 'cow', khāta 'pit'/ghāta 'blow'.

-k- : It is unvoiced, non-aspirate velar plosive consonant. It occurs in initial, medial and rarely in final positions, viz , kāma 'work', karta 'a saw', ukāribā 'to vomit', ukuṇi 'louse', ṭhik 'right'.

-kh- : It is unvoiced, aspirate velar plosive. It occurs in initial and medial positions, viz., kheta 'field', khajuri 'date palm', khapara 'tiles', ukhāṛibā 'to irritate', ākhu 'sugar cane'.

-g- : It is voiced non-aspirate velar consonant. It occurs usually in initial and medial positions, viz., dig-bidiga 'all directions', gahama 'wheat', gāī 'cow', gāta 'hole', ugāribā 'to vomit', ugāḷibā 'to obstruct', jhagaṛā 'quarrel'.

-gh- : It is voiced aspirate velar sound. It occurs in initial and medial positions, viz., ghia 'ghee', ghuṇa 'weevil', bāgha 'tiger'.

The Affricates, ć, ćh, j', j'h

Bengali (Standard Colloquial) and Oṛiyā affricates are almost alike in the nature of articulation. Bengali affricates are, according to Dr. Chatterji, palato-alveolar sounds but his opinion has become debatable. Dr. D. N. Bose in his investigation into the matter with the help of Experimental Phonetics has observed : "Hence, it can be concluded that the 'affricates' in Standard Bengali ...... is mainly 'alveolar', although some portion of the 'pre-palatal' region is also touched, and in comparison with the English 'affricates' which are called 'palato-alveolar' in the pronunciation of which a considerable area of the 'dental' and 'alveolar' regions left 'unwiped off' unlike Bengali, we can name the series of sounds studied as "Front Alveolo-palatal" and the digraph also may be revised to /tś/ for /cś/." (D. N. Bose : Affricates in Standard Bengali, published in the "Bulletin of the Philological Society of Calcutta", Vol. 4, pt. ii, 1963).

Thus, Oṛiyā affricates seem to be alveolo-palatal. In the articulation of these sounds the outgoing breath is obstructed by the normally spread-out blade of the tongue, well against the alveolar region or the gums below the teeth ridge, where it commences from the hard palate. But unlike Bengali, the tongue is comparatively pressed hard and the contact of the apex and the blade ranges from the inner surface of teeth to the hard palate covering greater portions of alveolo-palatal regions. During the production of these sounds the obstruction is not complete and the touch continues longer, the separation of the tongue being slower than in the case of plosive consonant; and after the stricture in the roof of the mouth caused by the occlusion of the tongue, a friction of air takes place which finishes the pronunciation with the 'fricative off-glide', having no accompanying lip rounding. That these affricates are pronounced at a more forward position is confirmed by the fact that they often interchange with the dental, for instances, Or. tāśa for cāṣa 'cultivation', dhāṭikā for jhāṭikā 'quickly' (cp. Skt. jhaṭiti) etc.

Aspiration and voice cause semantic difference and therefore they are considered to belong to different phonemes. Thus, Or. cau 'four times' /chau 'freckle', curi 'theft' /churi 'knife', jaṛa 'inactive' /jhaṛa 'storm', jāṛa 'cold' /jhāṛa 'chandelier', 'shrub' etc. or, cau 'four times' /jau 'lac', chāṛa 'omission' /jhāṛa 'chandelier, shrub', churā 'dagger' /jhurā 'powder' etc.

-ć- : It is unvoiced non-aspirate Alveolo-palatal affricate consonant and is found usually in initial and medial positions, viz., cora 'thief', cālibā 'to move', cauda '14', pāceri 'wall', nāca 'dance' etc.

-ćh- : It is unvoiced aspirate Alveolo-palatal affricate consonant which occurs initially or medially, viz., churi 'knife', chāmu 'in front', gacha 'tree', mācha 'fish' etc.

-j'- : It is voiced non-aspirate Alveolo-palatal affricate consonant and usually found in initial and medial positions, viz., jaḷa 'water', jāgibā 'to be awake', jaa 'barley', rajā 'king', sajā 'punishment' etc.

-j'h- : It is voiced aspirate Alveolo-affricate consonant. It occurs in initial and medial positions, viz., jhagaṛā 'quarrel', jhaṛi 'storm', jhāu 'a kind of tree', jhoḷa 'soup', bāñjha 'barren woman', bujhibā 'to understand' etc.

In the Southern dialect of the Oṛiyā language the above affricates sounds are purely of alveolar nature except when they are followed by front vowels and they are pronounced like ts tsh, dz, dzh (T. J. Maltby: A Practical Handbook of Oriya, 1874, pp. 2, 4; LSI Vol. V, pt. 2; K. B. Tripathi: 'Southern Oriya' published in OHRJ Vol. X No. 4, 1962).

The Retroflex Consonants ṭ, ṭh, ḍ, ḍh

These sounds are produced with the tip of the tongue somewhat curled back, so as to come in contact with hard palate behind the teeth-ridge. Possibly the tip of the tongue curls back a little more than Bengali.

Voice and aspiration cause semantic difference and hence the four sounds are to be considered as belonging to different phonemes. Thus, Or. ṭaka 'greed' /ṭhaka 'cheat', ṭekā, 'pebbles, pelt' /ṭhekā 'turban', ṭikā 'commentary' /ṭhikā 'casual', ḍāḷa 'branch' /ḍhāḷa 'a pot', ḍāka 'post, shout' /ḍhāka 'drum' etc. or, ṭākibā 'to expect' /ḍākibā 'to call', ṭhaga 'cheat' /ḍhaga 'proverb' etc.

-ṭ- : It is unvoiced non-aspirate retroflex consonant. It occurs in all positions, viz., ṭaṅkā 'a rupee', ṭāṇibā 'to draw', taṭakā 'fresh', thaṭā 'fun' etc.

-ṭh- : It is unvoiced aspirate retroflex consonant. It occurs in initial and medial positions, viz, ṭhākura 'deity', ṭhaka 'cheat', ṭhāba 'trace', kāṭha 'wood' etc.

-ḍ- : It is voiced non-aspirate retroflex consonant. It occurs initially only. Medially it occurs as one of the members of the consonant cluster. -ḍ- has a retroflex flap allophone intervocally, viz., ḍā:sa 'a gnat', ḍākibā 'to call', thaṇḍā 'cold'.

-ḍh- : It is voiced aspirate retroflex consonant. It occurs only in initial position but medially it is always as one of the members of the consonant cluster, viz., ḍhāla 'shield', ḍhāṅkuṇi 'a lid', saṇḍha 'bull,' meṇḍhā 'ram' etc.

The Dental Consonants, t, th, d, dh

In pronouncing these sounds, the air passage is completely obstructed by the point of the tongue and the upper teeth, and the tip of the tongue touches the back or edge of the upper teeth ; and when the tongue is removed from the root of the teeth the air suddenly escapes through the mouth and in doing so makes an explosive sound. The tongue is fully spread out.

Voice and aspiration cause semantic difference and therefore, the four sounds are considered to belong to different phonemes. Thus, Or. taḷi 'sprout' /thaḷi 'bag', tāu 'blaze' /thāu 'let him stay', dāna 'gift'/dhāna 'paddy', daṇḍa 'punishment' /dhaṇḍa 'a type of snake' etc. or, tāu 'blaze' /dāu 'revenge', thaṇḍā 'cold' /dhaṇḍā 'a necklace of flowers' etc.

All the four consonants may occur initially or medially.

-t- : It is unvoiced non-aspirate dental consonant. Rarely it occurs in final positions, for instances, tame 'you', tāu 'blaze', gāta 'hole', bhāta 'rice', nacet 'otherwise' etc.

-th- : It is unvoiced aspirate dental plosive, for instances, thaḷi 'bag', thamāibā 'to stop', hātha 'hand' etc.

-d- : It is voiced non-aspirate dental plosive, for instances, dauṛibā 'to run', diã 'diety', muda 'a seal', nida 'sleep' etc.

-dh- : It is voiced aspirate dental plosive, for instances, dhāna 'paddy', dhāibā 'to run', andhāra 'darkness', udhāra 'loan' etc.

The Labial Consonants p, ph, b, bh

In the articulation of these consonants, the air passage is completely blocked by closing the lips and raising the soft palate to close the nasal transit, the air is compressed by pressure from the lungs and when the lips are opened the air suddenly escapes from the mouth and in doing so makes an explosive sound. While uttering these sounds, both the lips come together and are drawn forward with a considerable lip rounding. As the lips play an important part, the sounds are known as labial or bi-labial consonants.

Aspiration and voice cause semantic difference and therefore, the four sounds are considered to belong to different phonemes. Thus, Or. paṭā 'plank'/phaṭā 'cracked', paḷa 'fraction of a minute' /phaḷa 'fruit', bājibā 'to ring' /bhājibā 'to break, to flee away', bāṭa 'way' /bhāṭa 'a bard' etc. or, paḷa 'fraction of a minute' /baḷa 'strength', phaṛā 'split' /bhaṛā 'fare', phāi 'profit' /bhāi 'brother' etc.

All the four sounds occur in initial or medial positions.

-p- : It is unvoiced non-aspirate bi-labial plosive. Finally it occurs in rare instances, viz., paharā: 'broom', pahia 'wheel', pāibā 'to get', āpaṇa 'self', cup 'silence' etc.

-ph- : It is unvoiced aspirate bi-labial plosive, for instances, phaḷa 'fruit', phaṛā 'split', bāmpha 'vapour' etc.

-b- : It is voiced non-aspirate bi-labial plosive. It occurs rarely in final position, viz., bāṭa 'way', baḷada 'bull', sabu 'all', khub 'much' etc.

-bh- : It is voiced aspirate bi-labial plosive, viz., bhāta 'rice', bhāga 'share', ubhā 'appearing, standing' etc.

The Nasal Consonants :

In the articulation of the nasal consonants, the nasal passage is not blocked by raising the soft palate, as happens in the case of non-nasal consonants; consequently the air passes through the nose, causing acoustic difference from the non-nasal consonants of the same group (*varga*), although for these latter the tongue remains in the same position as in the case of nasals.

Oṛiyā has five nasal consonants, viz., ṅ, ñ, ṇ, n, m corresponding to the five classes (*pañca varga*) of the plosives (i.e., k, c, ṭ, t and p-series). Besides, there are two aspirated nasals, viz., nh and mh like the Bihārī speeches. The cerebral nasal -ṇ- of Oṛiyā distinguishes the language from the other eastern languages which acoustically make no difference with dental nasal -n-.

The Bilabial Nasal m, mh

It is voiced Bi-labial nasal consonant. -mh- is aspirated. -m- occurs in initial and medial and rarely in final positions, while -mh- does not occur initially. In their articulation the mouth passage is completely blocked by closing the lips;

the soft palate is lowered so that, when air is emitted by pressure from the lungs, it passes out through the nose; the tongue is held in a neutral position; the vocal cords are made to vibrate so that 'voice' is produced.

Examples :—maḷa 'dirty', mahuṛa 'crown', maṇiṣa 'mankind', āme 'I', tame 'you', āmbiḷa 'acidity', āmba 'mango' etc.

The aspirated -mh- is not a distinct phoneme as aspiration does not cause semantic difference. Besides, the sound is almost rare as loss of aspiration is at present a common trend, and usually a -b- appears between -m- and -h-, viz., Or. āme (<āmbhe <*āmhe), umhei, umbhei 'brazier', umheibā 'to lit fire' (*see* also p. 191).

The Alveolar nasal n, nh

In the articulation of these sounds the mouth passage is completely blocked by raising the tip of the tongue to touch the back or edge of the teeth-ridge; the soft palate is lowered so that, it passes out through the nose; the vocal cords are made to vibrate so that 'voice' is produced. They are 'Alveolar Nasal sounds'. -nh- is aspirated. -n- occurs in initial and medial positions (rarely in final position) while -nh- does not occur initially. -nh- does not seem to be a distinct phoneme as aspiration does not cause semantic difference.

Examples :—nāca 'dance', naîbā 'to bend', na '9', nā: 'name', sāna 'small, little', binati 'request', anturi-śāḷa 'labour room', andhāra 'dark' etc.

The aspirated -nh- is not so frequent, viz., panhāibā 'to stream', to milk', cinhā 'mark, known', janha 'moonlight', kānhu, kanhāi 'Lord Krishna', panhāi (quoted in HBL by B. C. Mazumdar, p. 202) beside panāi 'sandals' etc. (*see* also pp. 188-189).

When -n- is joined to any other consonant following it, the pronunciation of the latter affects it and it gets the colouring of retroflex, palatal and dental according as the following consonant is retroflex, palatal or dental. But this makes no acoustic difference with the sound when it is alveolar.

The Palatal nasal ñ

It is a voiced nasal palatal consonant and can occur in a non-initial syllable only. Thus,

chuîbā = chuñibā 'to touch', sāî (sāñi) 'lord', bhuî (bhuñi) 'earth', bhuyā: (bhuiñā) 'landlord'; muhî 'I' is often heard as muñi, or, siibā 'to sew' is also heard as (siñibā).

It is not a distinct phoneme and acoustically it resembles (~j~.) i.e., nasalised -y-. It is also to be noticed that (ñ) used singly is quite distinct from (ñ) in conjunction with the palatal affricate which is heard as (n.) The two sounds are pronounced with the tongue touching the palate at two different

places; the former, that is (ñ) used singly, is less forward than the latter, i.e., (ñ) heard as (n) in connection with the affricates.

The Velar Nasal ṅ

It is a voiced volar nasal consonant. In its articulation the mouth passage is completely blocked by raising the back of the tongue to touch the fore-part of the soft palate; the soft palate is in its lowered position, so that when the air is emitted by pressure from the lungs it issues through the nose; the vocal cords are made to vibrate, so that the 'voice' is produced.

It is a cluster sound in Oṛiyā and occurs always with a plosive of the same class or with -h- and -s-, although in rare instances the free velar nasal is heard, viz., baṅḷā for baṅgaḷā 'Bengal' etc. It is heard only in non-initial position, for instances, āṅka 'number', sāṅga 'in association with', saṅkha 'bridge', siṅghāṇi 'mucus from the nose', siṅghāsana (Skt. siṃhāsana) 'throne' etc.

The Retroflex Nasal ṇ

It is a voiced retroflex nasal consonant. In pronouncing this sound, the tip of the tongue is slightly curled to touch the point against the hard palate and flaps forward, just touching the hard palate near the teeth-ridge and the velum is lowered to allow the breath to pass through the nasal cavity (*see* also EOLS p. 120, footnote). It may be called supra-alveolar or pre-retroflex owing to its forward nature of a true retroflex sound. This -ṇ- is strongly blurred and is audible almost like -ṇṛ- through the nose; more accurately, it has a nasalised flap articulation and is hard like ($ṛ^{n}$). In the combination of ṇ and the stop of the same class, it is never a retroflex sound; but simply an allophone of -n- with a bit curled tip of the tongue. Similarly the group ṇ+h, there is no audible acoustic difference with the sound (n) when it is alveolar.

In the Western or Sambalpurī dialect of Oṛiyā the sound -ṇ- is used in a very limited number of words, e.g., in the word kaṇ 'what' (EOLS p. 216). But in the standard Oṛiyā and in other dialects the sound -ṇ- is a phoneme distinct from (n), for examples, pāṇa a caste' /pāna 'drinking', mana 'mind'/ maṇa 'to control', kanā 'rags' /kaṇā 'one-eyed'.

It occurs in medial positions only, rarely it is found in final position, viz., ka:ṇa 'what', also kaṇ, eṇu 'for this reason', chaṇa 'straw, hay', baṇa 'jungle' maṇiṣa 'mankind' etc.

The Lateral Consonants l, lh

In the articulation of these sounds, the blade of the tongue touches the teeth-ridge, slightly back than in case of -t-, but little more to the back than -n-; and the air passage is blocked in the middle and the air passes by the sides of the tongue. Their pronunciation is accompanied by the vibration of

the vocal cords. Therefore, they are voiced lateral alveolar consonants. Really, they are post-alveolar sounds as they lie between (n) and (c). Before retroflex sounds, -l- has a subsidiary retroflex value. (lh) is aspirated.

-l- occurs in all positions, though rarely in final position, for examlpes, lākha 'one lakh', lāja 'shyness', ḍāli 'pulse', cālibā 'to move', lāl 'rod' etc.

-lh- is aspirated form of -l-. It does not seem to be a phoneme distinct from -l- and is of rare occurence. It occurs only in medial positions, for instances, pilhai 'spleen', olhāibā 'to lower', kolha 'a tribe', kalhāra 'a white lotus', golhā 'too much affection', calhā 'whey of curds', palhā 'a hut', malhāra 'a tune of music', alhāda (āhlāda), palhāda (prahlāda) etc.

The Lateral Retroflex Flapped ḷ

In the articulation of this sound, the tip of the tongue is curled backwards, striking the hard palate well behind the ridge of the teeth ; but after contact has been made, it is flapped down forward into the bottom of the mouth, touching the hard palate. The velum is raised and the air passage is obstructed by raising of the tongue when the air passes between the sides of the tongue and the back of the teeth (*see* also EOLS p. 122 ; Turner : Guj. Phon. ff 53).

In pronouncing -ḷ- the tongue is nearly in the same position as for -ṇ-, i.e., in the supra-alveolar position, but it moves more backward than in the case of -ṇ- with regard to the point of articulation and by nature it flaps more prominently. Like -ṇ- it always occurs between two vowels and never occurs initially, these two phonemes being the most distinctive features in contra-distinction to those of the other eastern languages.

The distinction of the pronunciation of -ḷ- and -ṛ- lies in the facts that, first of all, in the former case, the tip of the tongue curls back more than in the case of -ṛ- and secondly, that it is more pressed against the hard palate and flaps down more tensely than -ṛ- (compare Or. baṛa baḷada). This -ḷ- is distinct as a phoneme as it causes semantic difference, for instances, baṛa 'big'/baḷa 'strength', kaṛa 'side'/kaḷa 'trap, tactics', dhaṛā 'balance'/dhaḷā 'white' etc.

The phonemic value of -l- and -ḷ- is also to be noted, thus, kalā 'he did'/kaḷā 'black', kāli 'to-morrow'/kāḷi 'ink' etc.

The uneducated of the lower strata of the society of Orissa, especially women, generally confuse -ḷ- with -r-, viz., bara for baḷa 'strength', cāura for cāuḷa 'rice', deura for deuḷa 'temple', neura for neuḷa 'mongoose' etc. (cf. EOLS p. 123). In the Western or Sambalpurī dialects of Orissa, this highly flapped consonant -ḷ- is replaced by -l- (cf. EOLS p. 216).

The Rolled Consonants r, rh

It is a voiced rolled alveolar sound and is formed by a succession of taps made by the tip of the tongue against the upper gums. Before ṭ, -r- has

slightly higher articulation. -r- is voiced and non-aspirate. -rh- is aspirated. -r- occurs in initial and medial positions, and rarely in final position.

Examples:—rāṇī 'queen', rakhuāḷa 'cow-boy', āhuri 'also', karibā 'to do', dar 'price' etc.

The aspirated -rh- is not usual with Oṛiyā and is not a distinct phoneme. In Oṛiyā word bārhā 'boar' (Skt. varāha), -rh- is a secondary development due to the loss of interior vowel.

The Flapped Retroflex Consonants ṛ, ṛh

In the articulation of these sounds, the tip of the tongue is curled up and is brought near the point of articulation for ṭ, ḍ, but is quickly made to move forward and strike against the teeth-ridge with the underneath side and then lie flat; or, in other words, it is raised to the retroflex position and then made to fall flat hitting the teeth-ridge with the underneath side on the way. (*See* also Daniel Jones: An Outline of English Phonetics, ff 753, 823).

These sounds occur in non-initial positions. In contrast to Bengali, Oṛiyā -ṛ- seems to be pronounced with greater curling of the tongue and is pressed a bit hard against the hard palate.

Aspiration causes semantic difference and therefore, the two sounds form different phonemes, thus, buṛā 'drowning'/buṛhā 'an old man', baṛā 'a kind of cake'/baṛhā 'increase', baṛi 'pulse-cake'/baṛhi 'flood'.

The sounds -r- and -ṛ- are distinct sounds in Oṛiyā, for examples, baṛa 'noble'/bara 'husband', dara 'price'/daṛa 'expert', pāribā 'to be able'/pāṛibā 'to fart' etc. but in the Western or Sambalpurī dialects of Oṛiyā, -ṛ- is sometimes replaced by -r- (EOLS p. 217).

The Alveolo-palatal Fricative ś

It is pronounced by the tip and blade of the tongue and is produced by articulating in the area between the alveolus i.e. the ridge just behind the upper gum and the front part of the hard palate, the 'front' of the tongue being at the same time held in a somewhat raised position (cf. Gray: Foundations of Language, p. 50). The teeth are fairly closed together and there is no remarkable lip rounding. Thus it is a breathed alveolo-palatal fricative consonant.

Oriya -s- appears to be intermediate between /s/ of English *sob* and /sh/ of English *shop* (in the pronunciation of a British speaker), but is mainly 'alveolar', some portions of the pre-palatal regions being touched. Dr. Chatterji has also observed that Oṛiyā -s- is probably a kind of -sy- sound which is to be taken as intermediate between -s- and -ś- (cf. VRC ff 21, introduction, ODBL p. 546, also ODBH p. 71). Oṛiyā -s- is often seen to be interchanged with -ch- and

this very fact reveals its palatal nature. (for the examples of interchange of -s- and -ch- *see* pp. 155, 157. In the Southern dialect of Oṛiyā -s- is distinctly alveolar in nature.

Oriya -s- occurs in initial and medial positions, but rarely in final position, for instances, Or. pāûsa 'ashes', hasibā 'to laugh', saṇḍuāśi 'tongs', beś 'well' etc.

The Glottal Fricative h

In its articulation the mouth is held in a vowel position and air is emitted through the wide open glottis and a friction is heard. It is breathed glottal fricative. It occurs in initial and medial positions, e.g. hātha 'hand', haḷadī 'turmeric', kāhāṇi 'a story', mahuṛa 'a crown' etc.

An unvoiced variety, a subsidiary form of this phoneme -h-, also occurs after the voiceless stops to form the unvoiced aspirates. In some interjections, in a final position, an unvoiced -h- is also found, viz. ih, eh etc.

The Semi-vowel w

In the articulation of (w) the two lips touch one another at the two ends, leaving in the middle a free passage for the air to escape. The back of the tongue is raised upwards towards the soft palate, higher than in the case of (u), but not touching it. It is thus a bilabial semi-vowel.

It occurs medially and occasionally serves as glide from the less open to the more open back vowel. Thus, guāra (guWāra) 'rustic', pua (puWa) 'son', dhuā: (dhuWā:) 'smoke', kuā (kuWā) 'a well' etc.

The Semi-vowel j

In the articulation of this sound, the tongue is very much in the position of (i), the air passage being a little narrow.

It occurs medially and optionally serves as glide from the less open to the more open vowel. Thus, kiāri (kiYāri) 'bed of the garden' jhia (jhiYa) 'daughter', kie (kiYe) 'who', nie (niYe) 'takes' etc.

The pronounciation of Skt. -y- in the middle syllables (the initial *ts.* y becoming always -j- in Oṛiyā) has kept the original value of -i- whereas in Bengali it is always with the value of -e- (cp. Skt. dayā=Or.. da^{i}ā=B. da^{e}ā).

ERRATA

Page	Line	In place of	Read
41	16	*unprinted portions*	the old
55	22	Pratāparudra	Pratāpadeva
59	10	khāEra	khæ:ra
62	25	p. 7-9	p. 79
74	15	p. 7-1	p. 71
75	19	aīsasi	aïsasi
	23	Mai -ā, aũ	Mai -ā, æ
80	43	O. Aw rasci	O. Aw rasoi
84	25	~ (kh)	~ k (h)
86	6	(śaṅkha)	(śaṃkha)
89	40	pk karṇahāra	pk kaṇṇəhāra
93	Last line	ber	berā:
99	7	khataṃ	khetaṃ
101	42	n+t>nt, n+h>nh	n+t>nt beside n+h>nh
102	7	pāḷiḷa	pāḷilā
103	22	sparśa	sparśa>
107	26	18th	16th
109	39	pokhuri	pokhirī
110	25	*vide* Vol. VI	*vide* OHRJ Vol. VI
113	35	-e- to -i-	-i- to -e-
114	13	apaṛibā	apāṛibā
119	Last line	(purohhita)	(purohita)
121	Last line	ciggān	ɔiggān
122	24	khhāi	khāi
123	3	talāa, talāa,	taḷāa, talāa
130	18	guttural+n, m	guttural or -t-+n, m
137	10	had	dh
145	11	krīsta(ṃ)	krīṣṭa(ṃ)
147	30	B. An buk	B. Ass buk
156	37	TC	JC
161	32	uṣṭa	uṣṭra
165	14	kāpuṛia	kāpuṛiā
171	31	Mai. -ita, a-at	-ita, -ata
182	7	bhrāta	bhrātā
	33	(vivaha)	(vivāha)
185	7	Srinagar	Srijanga

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